

## Surgery

### Carcinoma of the Stomach

Roger Wilson, M.D.

It is well known that cancer of the stomach is one of the most intractable neoplasms that befalls us. Its complete eradication remains a formidable challenge to surgeons everywhere. Whereas in recent years improved surgical techniques, better anaesthesia, a more complete understanding of the body's salt, fluid, vitamin and hemoglobin requirements have resulted in a considerable rise in the resectability rate, the increase in the long term survival rate following operation has been disappointing. The reason for this has been generally attributed to the fact that the early diagnosis is difficult to make, and more often than not the tumor is well advanced when first attacked surgically. The long period of symptomatology before recognition in the average case is quoted, and the public and medical profession are taken to task for almost criminal delay in this respect.

More recently the concept of biologic pre-determinism in gastric carcinomata as a major limiting factor of curability has been brought to our attention. This idea was for me a most disturbing one, since it implies to some degree at least, that no matter how hard we try to cure these people our efforts can not measurably change the neoplastic pattern, and as a result the survival rate. It is cited that cases with the longest duration of symptoms have the best prognosis, and that extension of disease beyond the stomach to the perigastric lymph nodes is not an indication of a less favourable prognosis. This fatalistic attitude to me negates the zeal of an early and thorough diagnostic effort, and belies the hitherto most fundamental dictum of cancer surgery, that the earlier a growth is recognized and removed, the greater will be the chance of cure. What was even more disturbing and in support of such hypothesis are cases in my own memory where the symptoms were of long duration, the disease far advanced at the time of operation, and the survival time far beyond one's most hopeful expectation. Again, one recalls cases of advanced cancer of the stomach leading to death where few if any symptoms were present in life time, none at least of sufficient prominence to lead to the diagnosis which was so plain at post mortem.

It was with these thoughts in mind that I have reviewed 132 consecutive cases of histologically proven cases of gastric cancer from a local hospital

to determine what the symptomatology was, to what degree physical findings and ancillary examinations and tests contributed towards the diagnosis, and just how effective surgery was in relationship to the probable duration of the disease.

The patients, veterans, were with only one exception all men. The average age was 67 years. The commonest complaint was abdominal pain occurring in just over 60% of cases, and of a duration of a little better than one year and a half. As a rule the pain was of a gnawing character, situated in the epigastrium and bearing some relationship to the ingestion of food. Weight loss was the second most frequent symptom, being present in 54.4% of cases, and averaging 23.3 lbs. during 6½ months. Loss of appetite, vomiting, and a great variety of symptoms such as "bloating," "gas," "pressure," and "waterbrash," which I have grouped collectively under dyspepsia, were all manifest to approximately the same degree, that is 40 to 44%. Vomiting was most commonly seen in the pyloric tumors. Of particular interest was the average duration of dyspeptic symptoms, approximately 3½ years. Many of these men had been treated prior to hospital admission for gastritis, "nervous stomach" and peptic ulcer. Weakness, constipation and nausea were the next most frequent complaints, all of relatively short duration, and presenting 15% to 30% of cases. The incidence of dysphagia was 11.2% and was confined entirely to lesions involving the cardiac sphincter. Melena, diarrhoea, hematemesis and the finding of an abdominal mass were infrequent symptoms, with an incidence of well under 10%.

In 10% of this series the diagnosis was not made clinically or by operation, but in the post mortem room.

The physical examination alone was rarely diagnostic. Abdominal tenderness, usually supra umbilical, was the most common finding, being present in well over one-third of the cases. A palpable epigastric mass occurred in just over 30%. Hepatic enlargement was a frequent finding, but a palpable hard liver suggesting secondary deposits was seen in just 10.8% of cases. Rectal shelf deposits were infrequently discovered; in 5.8%.

X-ray examination of the stomach by barium meal proved to be the most reliable single method of examination. It was employed in 76% of these cases and was positive in 68.4%. In another 20% a diagnosis of carcinoma was suspected, since such terms as "possible carcinoma," "probable carci-

noma," or "suspected carcinoma" or "carcinoma not ruled out," were used in the report. The diagnosis of benign lesions such as peptic ulcer, polyp, or gastritis, was made in 9.5%. In only 2.1% was there a negative X-Ray report.

Gastroscopy gave comparable figures of diagnostic accuracy, but its usage in only 12.8% of cases relegates it to a definite second place in usefulness. There were good reasons for this. Some of these patients were kyphotic, spondylitic, or had cardiac hypertrophy, making gastric intubation difficult or impossible. Lesions at the cardiac orifice were as a rule eliminated because of stenosis and the proximity of the tumor to the laterally placed distal lens. The fact that there is always the hazard of perforation associated with this procedure precludes it to my mind as a routine method of examination, especially when there is a definite indication for laparotomy where the lesions can be visualized, handled and biopsied if necessary. The greatest role the gastroscopist plays is in confirming or ruling out the presence of a lesion at some site in the stomach where the radiologist suspects it.

Esophagoscopy was only employed in the suspected tumors of the cardiac orifice. It was successful in establishing a diagnosis in all of these cases.

A study of gastric washing with and without the balloon technique proved most disappointing. It was used in 16% of cases with negative findings in 90%.

Free Hydrochloric Acid was absent from the gastric juice in 84.5% of cases in which a gastric analysis was done. An interesting point in this respect is the fact that of these, free HCL was present in 100% where the cancer was shown histologically to have arisen in the base or edge of a chronic peptic ulcer. Occult blood appeared in the stool in 81% of cases treated. The average Hemoglobin count was 72.7%. Pernicious anemia was an accompanying disease in only one incident, a much lower incidence than is found in most series. The average White Cell count was 9,300, and Sedimentation Rate 50 mm/hr West.

It is difficult to classify these tumors with any accuracy according to their gross appearance, since so many of them had mixed features of ulceration, infiltration, and intraluminal projection. In 37% of cases the tumor was predominantly polypoid. Sometimes these were discovered after a thorough investigation of unexplained loss of weight and anemia. If the polypoid mass encroached on the cardiac orifice, dysphagia became a prominent symptom. A positive biopsy was often obtained through the rigid opened-ended Jackson gastroscope. In other cases although direct visualization of the growth was not possible, the tumor could be felt as a rigid obstruction with the end of the instrument through prolapsed normal esophageal mucosa.

Ulcerative carcinoma comprised 23% of the cases. In most instances the gross appearance of the lesion left no doubt as to the diagnosis. Nodularity in the region of the ulcer and a thickened serosal beading were quite diagnostic. In a few, however, it was difficult to be sure. When radiating mucosal folds, regularity in outline, extragastric protrusion, moderate size, uniformity of the ulcer walls suggest a benign lesion, all these features can be present in an ulcerating cancer. The remarks of Palmer are pertinent in this respect when he states: "There are no pathognomonic signs of malignant disease in an ulcerating gastric lesion, but there are pathognomonic criteria that the ulcer is benign." The only way one can be positive of the diagnosis is to study formal sections of the surgically excised ulcer. Frozen section at operation is not foolproof but is the most accurate diagnostic method available when doubt exists. In 4% of this series the cancer was shown histologically to be in, or presumably to have taken origin from, the base or floor of a chronic benign peptic ulcer. In one case a polypoid carcinoma lay adjacent to a chronic benign gastric ulcer, as an independent lesion, another interesting facet of the ulcer-cancer problem.

The tumor was predominantly infiltrating in 32%.

In some cases the prepyloric gastric wall was replaced by infiltrating carcinoma resulting in a degree of pyloric obstruction. Vomiting is a prominent feature of these. A plaque-like tumor, sometimes described as the "superficial spreading" type of gastric cancer was present in 4% of cases. The plaque often ulcerated was frequently a source of bleeding, or by extension to cardia or pylorus produced symptoms of obstruction. Lim Plastica, the diffuse infiltrating carcinoma, a rare process was found also in 4% of this series. Sometimes the disease was found localized to the body or pylorus, but more often it involved the whole stomach.

The resectability rate in this series was 21%, the operative mortality rate 8%. The 5-year survival rate, considering all cases was 3%, considering only "curative" procedures, 11%. There is a great deal in the literature these days concerning the advisability or inadvisability of total gastrectomy for all operable carcinomata of the stomach. A study of all these cases where subtotal gastrectomy had been done and who subsequently came to post mortem, showed that the recurrence in the gastric remnant, in only 11%. The major site of recurrence or rather persistence of disease was in the peri-pancreatic lymph nodes, liver, pancreas and peritoneum. This would support the view of the surgeons concerned in this series, where only two total gastrectomies were done, that there is little to justify the poorer

tional result incident to resecting more stomach, when the persistence of disease stems as a rule from the lymphatic bed.

The following relates the type of operation with frequency to the average survival in months after operation. "Curative resection" gave the longest average survival of 29.1 months. Palliative resection resulted in an average survival of 11.3 months, which is almost three times that of cases where the primary growth was not attacked, such as laparotomy 4.2 months, thoractomy 4.5 months, pyloric exclusion 4 months, jejunostomy 3.5 months, or no operation at all 4.3 months. Moreover, there is no doubt that these patients were much more comfortable as a result of these palliative procedures. There was less abdominal pain, less nausea and vomiting, less dyspepsia, and less blood loss. The average survivals following the more formidable procedures of esophago-gastric resection 7.75 months, total gastrectomy 2.7 months, and the Whipple Operation 4.3 months were considerably less than those following palliative gastrectomy.

Let us examine the relationship between the average survival in months following "curative," resection and the duration of symptoms, involvement of the perigastric lymph nodes, and histological grading of the tumor. When symptoms were present under one year the average survival was 22 months, over one year, 16 months. When the perigastric nodes were not involved, the average survival was 24.8 months, when they were involved 16 months. If the tumor was Grade I or II histologically, the average survival time was 28.2 months, Grade III and IV, 13.4 months.

These are grim results indeed, but one must realize that many of these cases are still alive, but for the purpose of this study their survival has been considered as terminating at the present time. Truer survival times would be somewhat higher. Small though these figures are, and prob-

ably invalid from a true statistical point of view, they would indicate in general that the sooner the diagnosis is made, and operation carried out, the better the prognosis; that the outlook is better for those in which the disease is to all appearances still confined to the stomach, than when it involves the perigastric lymph nodes; and finally, that expectation of long survival is better if the growth is differentiated than if it is anaplastic.

If this is true, our programme to educate patients and physicians further about gastric cancer should be intensified rather than curtailed, our attitude one of vigilance and hope, rather than indifference or despair. The public need additional instruction concerning the dangers of ignoring symptoms, or of self treatment with one of the great variety of antacids available at the corner drug store. Sir Heneage Ogilvie aptly put it, as he so often does, "Sodium bicarbonate is the Undertaker's best friend." We as doctors should remind ourselves again of the valuable time that may be lost in treatment of stomach ailments with belladonna, antacids, and diet without having first made a diagnosis following a thorough investigation, or in accepting too readily psychiatric causes as an explanation for gastric symptoms. Again when the full investigation is negative and the clinical suspicion persists we should not dismiss this diagnosis and the patient from our minds. Many advanced gastric cancer cases give a history of this kind. A more frequent resort to laparotomy must be made when doubt exists. We should again call to mind the very great difficulty in differentiating benign gastric ulcer from cancer of the stomach, and resort to surgery more frequently in all ulcerating conditions of the stomach, with a full appreciation of the benefits of early gastrectomy. Only by alertness of this kind shall we be able to meet the challenge of stomach cancer which reaps such an abundant harvest year after year.



# Medicine

## Mysoline in Epilepsy

A. B. Houston, M.D., F.R.C.P.(C.), F.A.C.P.  
 Department of Medicine, University of Manitoba  
 Medical College  
 and  
 Out Patient Department, Winnipeg General Hospital

### INTRODUCTION

In the management of epileptic disorders the physician has available to him two broad groups of drugs:

(a) A sedative group, exemplified by the Barbiturates, whose action is to depress the reactivity of the central nervous system and so increase its resistance to the spread of the epileptic discharge, and

(b) A non-sedative group, exemplified by the Hydantoins, and by Tridione and related compounds, whose action is to suppress the epileptic discharge.

Based on the use of these drugs, a plan of management referred to as the standard medical treatment has been evolved. This has recently been clearly stated by Putnam,<sup>1</sup> and the unanimity of opinion regarding the principles involved has received favorable comment from Davidson and Lambroso.<sup>2</sup> This standard medical treatment may be outlined as follows, the initial choice of drug being based on the E.E.G. pattern during a seizure:

(1) For the Grand Mal type of discharge (22/sec. sharp waves) whether "idiopathic" or focal in origin, whether of motor or sensory, etc. type, and whether abortive or fully developed, Dilantin and/or Phenobarbital remain the standard against which newer remedies are measured.

(2) Following these Mebarol and Mesantoin are most likely to be helpful.

(3) For the Petit Mal type of discharge (3/sec. Dart and Dome complexes) Tridione is the drug of choice followed by the other diones and more recently—Milontin.<sup>2</sup>

(4) For the Psychomotor type of discharge (4-10/sec. complex activity) Dilantin with or without Tridione should be tried first.

(5) The many other drugs available run rather poor thirds because of the high incidence of adverse reactions, or low effectiveness, or both.

(6) The available drugs are tried in varying combinations and in sub-toxic doses by the trial and error method, until the best drug or combination thereof is found.

(7) Phenobarbital and probably Mesantoin should be avoided if possible in the Petit Mal type of discharge.

(8) Regular exercise, avoidance of physical fatigue, a satisfying vocation and simple psychotherapy are the hand-maidens of these measures.

In spite of the careful application of these principles, the objective of treatment, viz., the complete suppression of all epileptic manifestations with minimum impairment of efficiency, is realized only 50-60% of cases.<sup>1</sup> Consequently, any new anti-epileptic is welcomed, usually with more enthusiasm than subsequent experience warrants. Thus, after a derivative of Phenobarbital, subsequently named Mysoline, had been prepared and studied by Bogue and Carrington<sup>3</sup> in 1949, Hand and Stewart<sup>4</sup> reported 80% improvement following its use in an epileptic colony. Since that time many reports have appeared on its use in refractory cases of epilepsy, with favorable results in 8% to 80%. Through the kindness of Aye McKenna and Harrison we undertook an assessment of Mysoline in 1953. Since we were attempting to assess the drug only as an anticonvulsant, we selected patients with Grand Mal epilepsy, with or without other varieties.

### MATERIAL:

Two groups of patients were studied. A. Twelve patients were selected in the epileptic clinic of the Outpatient's Department of the Winnipeg General Hospital in whom the standard medical treatment had not produced complete control but whose optimum medication had, or felt, been achieved. This group consisted of five females and eight males, aged 17-66 years. They had a history of epileptic seizures for three to thirty-eight years (average twenty-three years). One had Idiopathic Grand Mal and Petit Mal; one had Idiopathic Grand Mal with psychomotor attacks; three had focal epilepsy with generalized seizures; and the remaining seven had Idiopathic Grand Mal alone. The Mysoline was given maximum tolerated dose if necessary, and varied from 0.75 to 1.50 gms. per day. Only eleven cases are included in the assessment (see below)—several of these tolerated one gm. per day, three tolerated 1.25 to 1.5 gms. per day and one required only 0.75 gms. per day. Where it seemed necessary Mysoline was used in combination with other anti-convulsants. In such an apparently refractory group it was felt that if Mysoline proved effective it would have earned a place for itself. I wish to discuss briefly, two of the twelve cases to illustrate some of the pitfalls inherent in this type of clinical investigation.

Miss I. J. Thirty-nine year old variously employed and unemployed spinster, with the last four years of idiopathic convulsive epilepsy—uncontrolled and/or toxic on Phenobarbital and Dilantin as the best combination, and partial replacement of Phenobarbital by Mysoline in April 1953 resulted in admission to hospital in status epilepticus. Discharged

lesser dose of Phenobarbital and Dilantin she remained seizure free for eight months, her longest free period, following which her seizures recurred as before. This case well illustrates the variability in the natural history of this disorder and the necessity for long follow-up studies in assessing any new remedy.

Mrs. J. R. Thirty year old divorced bakery worker, with idiopathic convulsive episodes had only daily abortive attacks on Dilantin and Phenobarbital. In April 1953 Mysoline was added (0.75 gms. per day) and no further seizures occurred. It was only several months later that we discovered that she had, for reasons of her own, taken the Mysoline for only one month. In spite of this she has had no attacks for the past twenty months. This case is not included in our assessment, but mentioned only to illustrate how easily the improvements could have been attributed to the new treatment.

B. Six psychotic adult female patients were selected at the Selkirk Mental Hospital on the grounds that:

(1) Their seizure frequency was recorded over a period of years, and

(2) Their medication was stabilized at the level judged optimum by the hospital staff, having both the psychosis and the epilepsy in mind. The dosage level of anti-convulsants was generally lower than in the outpatient group, so that the epilepsy might be considered less severe, and thus, it was thought that if Mysoline was effective against Grand Mal type epilepsy, it should show better results in this group than in the outpatient group.

#### Group A: RESULTS

Eleven cases were followed six to twenty-one months (average 16 months).

Three (H.L.; N.K.; J.S.) out of the eleven were seizure free and thus improved over their pre-Mysoline treatment, although it is noted that one of these (N.K.) had previously been seizure free for as long as three years (1933-36).

One (A.H.) was not seizure free but was probably improved in that more of his seizures were abortive.

One (I.J.) was worse, as has been mentioned.

Six were unchanged.

Thus, it would seem fair to say that a minimum of two (18%) and a maximum of four (36%) out of the eleven were improved by the use of Mysoline.

#### Group B:

These six patients had their previous medication gradually changed to Mysoline alone with the following results:

(1) Two were improved (seizure free) on 1.0 gm. per day.

(2) Two were unchanged on 1.0 to 1.5 gms. per day.

(3) Two were worse on 1.5 to 2.0 gms. per day.

Thus, our anticipated better results in this less severe group of epileptics (as measured by pre-Mysoline therapy) did not materialize, which accordingly, makes it impossible to draw any firm conclusions from our material alone, although Mysoline has apparently improved the state of about 25% of our refractory cases. (i.e., three out of eleven or five out of seventeen).

#### DISCUSSION

##### 1) Comparison with results elsewhere

A review of the available English-speaking literature reveals a concensus of opinion (Britain, Australia, U.S.A., Canada) that Mysoline is most effective in the motor convulsive manifestations of epilepsy, possibly of some help in the psychomotor type, and with rare exceptions, of no use in classical Petit Mal. From selected reports 4-16 I was able to identify some five hundred cases of Grand Mal epilepsy treated with Mysoline. Compared with their previous treatment approximately 16% of these were rendered seizure free and 53% were improved for follow-up periods of 3-18 months. With such relatively short follow-up studies in a disease as variable as epilepsy, I find it almost almost impossible to measure improvement unless the subject is seizure free, and even then, as I have illustrated, it may be difficult. However, where freedom from seizures extends over several months, it is perhaps reasonable to conclude that the new medication has effected an improvement.

Using these more severe criteria, 16% of the five hundred cases previously referred to were improved as compared to our 18-23%. Only a very few cases treated initially with Mysoline appear in the literature and in this group 60% were seizure free. This is of the same order as Putnam's, reported 55% on standard medical treatment and our outpatient record of 64% of fifty-three cases.

##### 2) Dosage:

As with all anti-convulsants, the drug must be introduced into any treatment scheme gradually and then pushed to tolerance. As has already been mentioned the usual tolerated dose is 1 gm. per day and only one of seventeen patients tolerated 2 gms. per day. The only toxic effects encountered were the ones which would be expected from a Phenobarbital-like substance, viz., drowsiness and ataxia.

#### CONCLUSIONS

From a critical and incomplete review of the literature and our own small experience, I believe we can tentatively draw the following conclusions concerning Mysoline.

- 1) It is an effective anti-convulsant.
- 2) It is relatively non-toxic.
- 3) Its place in the treatment of non-convulsive manifestations of epilepsy is questionable.
- 4) Its addition to our battery of anti-epileptics may enable us to assist a further 15-25% of epileptics with Grand Mal type seizures.

5) Its place in the standard medical treatment program for the Grand Mal type of epilepsy seems to be at about the same level as Mesantoin.

I am indebted to J. B. R. Cosgrove, now of Montreal, for his help with the General Hospital group and to Dr. J. J. T. Klimczynski for his help with the Mental Hospital group.

#### ◆ Group A — Case Summaries

Mrs. L. A. Forty-eight year old housewife, with latent lues (cured) and with idiopathic Grand Mal epilepsy for over thirty years. Only partially controlled on sub-toxic doses of Phenobarbital and Dilantin until October 1953 when treatment was changed to Mysoline, of which she tolerated 1 gm. per day. She was then seizure free for two months, after which seizures recurred as usual despite addition of Dilantin. An observation period of fourteen months.

Mr. H. L. Sixty-six year old laboratory assistant with eighteen year history of Idiopathic Grand Mal epilepsy and a sixteen year diary of seizures. Longest period seizure free was two months. On sub-toxic Phenobarbital and Dilantin he averaged 1-2 seizures per month. Since November 1953 on Mysoline 1 gm. per day, he has remained seizure free for thirteen months.

Mr. A. H. Thirty-nine year old labourer, with Infantile Hemiparesis and major and abortive convulsive seizures since childhood. He was on maximum tolerated doses of Phenobarbital and Dilantin until April 1953 when a gradual shift to Mysoline, of which he tolerates 1 gm. per day, resulted in the same number of seizures but more abortive and less convulsive than previously, for a period of twenty months.

Mrs. C. I. Forty-one year old housewife, with twenty-seven years of idiopathic Grand Mal epilepsy. Toxic and sub-toxic doses of Phenobarbital and Dilantin failed to control and on April 1953 she was given Mysoline up to 1.25 gms. per day without improvement. The addition of Dilantin and/or Phenobarbital failed to help. Twenty months observation.

Mr. S. C. Twenty-four year old labourer, with an eighteen year history of major convulsive epilepsy associated with left post-central cortical scar —operated on and adhesions freed in 1940. Best control (but poor) on sub-toxic Phenobarbital and Dilantin until May 1954 when sub-toxic Mysoline (1.25 gms. per day) with or without Dilantin and Phenobarbital made no improvement over next eight months.

Mr. N. K. Fifty-eight year old labourer, with twenty-two year history of idiopathic Grand Mal epilepsy had, from 1933-36, been seizure free (longest period) on maximum tolerated doses of Phenobarbital alone. Since March 1953 on Mysoline 0.75 gms. per day he has again been seizure free for twenty-one months.

Mr. R. E. Twenty-one year old student-laborer with seven year history of major and abortive convulsive seizures and Petit Mal — was never controlled and since October 1953 on Mysoline and without Phenobarbital, Mebarol, Dilantin, dione, Paradione, in varying combination has no better. A period of fourteen months on Mysoline.

Mr. A. S. Thirty-three year old unemployed carpenter, with idiopathic major and abortive convulsive seizures for seventeen years, was following standard medical treatment ending with toxic Phenobarbital and Dilantin in April 1953 when Mysoline (1.50 gms. per day) was introduced both with and without Dilantin and Phenobarbital without improvement for twenty months.

Miss I. J. Thirty-nine year old employed unemployed spinster, with thirty-four years of idiopathic convulsive epilepsy — uncontrolled and toxic on Phenobarbital and Dilantin as the combination. Gradual shift in April 1953 to Mysoline resulted in admission to hospital in status epilepticus. Discharged on lesser dose of Phenobarbital and Dilantin she remained seizure free for eight months—her longest free period—following which her seizures recurred as before.

Mr. J. S. Twenty-six year old casual worker with right cerebral hypoplasia and left hemiparesis; focal and generalized motor seizures since fourteen. Partial control on maximum tolerated Phenobarbital only for two years. Since April 1953 complete control on Mysoline, 1 gm. per day period of twenty months.

Mr. E. R. Seventeen year old student, with major motor and psychomotor seizures for three years, uncontrolled and almost unmanageable up to June 1954 when maximum tolerated dose of Mysoline (1 gm. per day) either alone or with Dilantin produced no benefit in motor convulsions (or psychomotor seizures for that matter) over a months period.

1. Putnam, L. J. and Rothenberg, S. F.: J.A.M.A., 152: (Aug. 8) 1953.
2. Davidson, Jr., D. T. and Lombroso, C.: New Eng. J. Med., 251: 22-897.
3. Bogue, J. Y. and Carrington, H. C.: Brit. J. Pharmacol., 230, 1953.
4. Handley, R. and Stewart, A. S. R.: Lancet 1: 742 (Dec. 12) 1952.
5. Butter, A. J. M.: Lancet 1: 1024 (May 23) 1953.
6. Whitty, C. W. M.: Brit. M. J. 2: 540 (Sept. 5) 1953.
7. Doyle, P. J. and Livingston, S.: J. Pediat. 43: 413, 1953.
8. Greenstein, L. and Sapirstein, M. R.: Arch. Neurol. Psychiat. 70: 469, 1953.
9. Smith, B. H. and McNaughton, F. L.: Can. M. J. 64, 1953.
10. Game, J. A.: Med. J. Australia 2: 709 (Nov. 7) 1953.
11. Selby, G.: Med. J. Australia 2: 709 (Nov. 7) 1953.
12. Nathan, P. W.: Lancet 1: 21 (Jan. 2) 1954.
13. Sciarra, D., Carter, S., Vicale, C. T. and Merritt, H.: J.A.M.A. 154: 827 (Mar. 6) 1954.
14. Wilson, W. E. J. and Hodgson, O. E. F.: J. Mental Health 100: 250, 1954.
15. Sharpe, D. S.: Brit. M.J., 2: 627 (Sept. 11) 1954.
16. Lyons, J. B. and Liversedge, L. A.: Brit. M.J., 2: 627 (Sept. 11) 1954.

## Obstetrics

### Three Consecutive Ectopic Pregnancies In the Same Patient

W. J. Friesen, M.D., F.R.C.S. (C.)

Department of Obstetrics and Gynecology, Manitoba Clinic,  
Winnipeg, Man.

Medical literature contains numerous references to recurrent ectopic pregnancy. Rarely, however, do these occur more than twice in the same patient. In 1951 Marbach and Schinfeld<sup>1</sup> reviewed the literature as far back as the middle of the nineteenth century and found only seven other cases. They added one of their own. Those questioning the wisdom of preserving the affected tube under any circumstances are apt to quote the case of Dawson<sup>2</sup> in whom ectopic pregnancy occurred twice in each oviduct. Some time ago the author encountered what was almost certainly the last of three consecutive tubal pregnancies.

On April 21, 1950, the patient had her first laparotomy for a ruptured ectopic pregnancy of the right oviduct. Although no tissue was saved for examination, there is no doubt of the diagnosis. The clinical and operative findings as described to me by the surgeon in charge were absolutely typical.

The second episode occurred on March 24, 1951. It was preceded by a history typical of ectopic pregnancy; i.e., intermittent bouts of crampy lower abdominal pain, anenorrhoea of about six weeks' duration and finally irregular scanty vaginal bleeding. Unfortunately, precise dates of the menstrual history are not available but the patient's and surgeon's descriptions leave little doubt as to the nature of the clinical picture. The findings at operation were, however, less definite. The surgeon and his assistant noted that the remaining oviduct was for the most part normal except for a collection of greyish friable material attached to the fimbriated end. They had the impression that the ovum had been extruded but were unable to identify it at the time. The adjacent ovary contained a small cyst. The cyst and the material around the fimbriae were excised and submitted for examination by a pathologist:

"1st Specimen—consists of multiple portions of firm brown tissue totalling 0.7 cm. in diameter. Micro-blood clot, tubal mucosa and decidua-like tissue found.

"2nd Specimen—consists of an open cyst measuring 8x6x5 cm. with a smooth exterior surface. On section it consists of three non-communicating cysts ranging in diameter from 1.5 to 5 cm. The lining of all the cysts is smooth and shining. At one pole there is an area 2x2 cm. of grey ovarian tissue. Micro-Theca-lutein cysts and degenerating corpus luteum.

"Diagnosis—it is almost certainly an ectopic pregnancy although absolute evidence is not present."

Recently several more sections were prepared from the original block of tissue. All showed well developed decidua. No chorionic villi, however, were found. It is difficult to imagine any condition other than ectopic pregnancy capable of producing this clinical and pathological picture.

Fortunately, the third episode is in no doubt as to the final diagnosis. There was nevertheless considerable difficulty arriving at it. When the patient consulted me on April 27, 1953, she was 31 years old, in good general health and childless. She had been married for ten years. Her main complaint was that of crampy lower abdominal pain for the previous month. On four separate occasions this pain had been very severe. The date of her last menstrual period was not definite but was estimated to have started either at the end of February or the beginning of March. On March 28 she had had a scanty period lasting only one day. Two weeks later there occurred another episode of bleeding. At this time she consulted her physician who examined her on several different occasions in the space of two or three days. He suspected an ectopic pregnancy but favoured a diagnosis of corpus luteum cyst or perhaps an abortion. A curettage was done. The material obtained was reported as typical of that following an abortion. No chorionic villi were present but the decidual reaction was pronounced. Following the curettage she felt better and was discharged on the fourth day. Immediately the pain recurred and recalling her two previous experiences, the patient feared that this too might be an ectopic pregnancy.

My initial pelvic examination merely added to the confusion. The hoped-for mass was palpable only on the right side where most of the pain and tenderness also were. The left adnexa were not remarkable except for a moderate amount of tenderness on deep pressure. Up to this point I had only the patient's history to go on. Nevertheless, she was immediately admitted to the Winnipeg General Hospital for further observation. On the evening of April 27, a culdoscopy was attempted but this unfortunately failed. Had this not been the case, the diagnosis would have been arrived at promptly and accurately with the obvious advantage to the patient.

On the third day and after repeated pelvic examinations a very tender small mass was easily palpable in the region of the left adnexa. During this time she continued to bleed moderately and complain of constant although not severe lower abdominal pain. The picture was so typical that

laparotomy could no longer be delayed. This was performed on May 1 and revealed an unruptured tubal pregnancy situated in the region of the ampulla. In view of the past history no attempt was made to salvage the tube nor any portion thereof. The diagnosis was confirmed by microscopic examination.

### Summary

1. An extremely rare case of what is almost certainly the last of three consecutive ectopic pregnancies is reported.

2. As long as the possibility for ectopic pregnancy to occur exists it must be considered and definitely ruled out. This may seem like an evident truism but the lesson learned from this case is by no means regularly applied.

The author is indebted to Doctors R. W. Whetter, Murray Hodgson who performed the first two operations on the patient at the Bethesda Hospital, Steinbach, and W. Penner who examined the tissue obtained at the two operations.

### References

1. Marbach, Herbert A. and Schinfeld, Louis H.: *Am. Obst. & Gynec.*, Vol. 62: 1376, 1951.
2. Dawson, Bernard J.: *J. Obst. & Gynaec., Brit. Emp.* 42: 651, 1935.

## Paediatrics

### "Problems of the Newborn Infant"

*A series of case reports and commentaries from the files of the Winnipeg General, St. Boniface and Children's Hospitals, illustrating factors which affect the survival of the infant during his first week of life.*

### The Hyaline Membrane Syndrome

J. N. Briggs, M.D., M.R.C.P.\*

Department of Pediatrics, University of Manitoba

The presence of a peculiar hyaline membrane in newborn babies who died was first reported by Hoccheim (1903). This condition which is now called the "Hyaline Membrane Syndrome" is at present one of the largest single causes of neonatal mortality, frequently causing death within the first 24 to 48 hours of life.

The clinical features are those of increasing respiratory distress with indrawing of the sternum and lower intercostal spaces, increasing tachycardia, the appearance of cyanosis followed by periods of apnoea and death. In less severe cases cyanosis and periods of apnoea are usually absent and the child will often recover with a lessening of symptoms in the order in which they appeared. When the chest is auscultated in these cases little or no air is found to be entering with each respiratory effort. Terminally there are usually rales in the chest.

Potter (1954) cited this condition as a major cause of neonatal death. Bundesden and Potter (1952) emphasized that "abnormal pulmonary ventilation" accounted for 60-66% of all neonatal deaths and that 32% of such cases had the Hyaline Membrane Syndrome. Bruns and Shields (1951) had a mortality from hyaline membrane of 25.9% and other workers concur with similar mortality rates, Tregillus (1951) 28.7%, Blystad, Landing and Smith (1952) 30.1%.

### Case History

#### Maternal History:

A 38 year old mother had undergone a normal pregnancy in 1944 and was delivered of a healthy

male child. Her previous illnesses had been appendectomy 1936, Tonsil and Adenoectomy 1942. Removal of kidney stones in 1947, spinal fusion in 1951.

Her last menstrual period was on March 1954. During her present pregnancy she had chocolate brown colored vaginal discharge which coincided with her period times, and lasted one day. This brown show occurred regularly throughout the pregnancy until October 19th when the vaginal discharge was then of a reddish color.

On October 20th, diagnosis of placenta praevia was made and was confirmed radiologically. She was admitted to the Maternity Pavilion of Winnipeg General Hospital on October 21st. The length of her pregnancy at this time was 30 weeks.

On admission the mother's general condition was good, the foetal heart sounds were heard and were considered normal. Vaginal examination confirmed the diagnosis of placenta praevia. During this examination there was no evidence of vaginal bleeding or bleeding from the uterus. Because of the presence of a placenta praevia in a transverse lie, and in view of the good condition of the mother the length of the pregnancy and the absence of any vaginal loss, a course of expectant treatment was embarked on. The mother was kept in hospital under observation. On November 6th the mother suddenly complained of pains in the left flank and abdominal cramps. A consultation was made and in view of the findings of placenta praevia, transverse lie and age of the mother an elective Caesarian Section was advised.

#### Operation:

An elective lower segment Caesarian Section was performed on November 8th at 10 a.m. Length of gestation at this time was 32 weeks. She was given 1/150th grains of Atropine, and Cyclopan was used as the anaesthetic. The total duration of anaesthesia was 57 minutes, the anaesthetic risk to the patient was described as "1".

The child was delivered within 6 minutes. During delivery the uterine cavity was packed

\*Winnipeg Clinic, Winnipeg, Manitoba.

gauze so that the liquor was excluded from the foetal head. A placenta praevia was found implanted on the posterior wall and was extracted.

#### Infant's Record:

The child, a female, weighed 5 pounds, 4 ounces (2,381 grams). The immediate Apgar rating was 10. The child's stomach was suctioned and she appeared well. Within three minutes of birth the child suddenly went blue and from that period on suffered respiratory distress. Immediate intubation was carried out by the anaesthetist, the stomach contents were further aspirated, no excessive secretions were found in the trachea and the child was given positive pressure oxygen. There was very little improvement following this resuscitative measure.

The child was admitted to the Nursery still suffering from considerable respiratory distress. The respirations gradually became more rapid, at first the indrawing of the lower ribs and intercostal spaces was not marked, subsequently this became apparent and the typical distress picture seen in the Hyaline Membrane was obvious with rapid respirations, marked indrawing of the lower intercostal spaces and increasing cyanosis. The heart rate rose rapidly. There was a considerable quantity of mucus draining from the nose and mouth. On account of the excessive mucus secretions from the naso-pharynx continual oral suction was necessary. The respirations, the rapid respiratory rate and indrawing of the chest continued for the next 24 hours. The heart rate continued to rise rapidly and periods of apnoea ensued. Terminally numerous rales and crepitations were to be heard throughout the chest and it was noted that scarcely any air was entering the thoracic cavity. Approximately 12 hours before death the child also developed scleredema of the legs. She died some 36 hours after birth from cardi-respiratory failure.

#### Clinical Diagnosis:

Cardio-respiratory failure due to Hyaline Membrane Syndrome.

#### Treatment:

Oxygen was given at the rate of 4 litres per minute (oxygen saturation of 54%). The child was nursed in an Armstrong incubator with a humidity of 90%. The temperature was 85°F. Alevaire mist (Triton 1339 wetting agent) was administered by continuous Aerosol for 24 hours. On account of the excess nasopharyngeal secretions Varidase solution 24 ccs. was added for a 12-hour period. No clinical improvement was noted and an attempt to oxygenate the child by extra-pulmonary means was instituted and Gastric Oxygen administration was carried on for 6 hours in this case. Dicrysticin  $\frac{1}{4}$  cc. as given to combat any possible infection, and Hydrocortone 12.5 mgms. was given at 8 hour intervals intermuscularly on three occasions in this

case. It is noteworthy that the Hydrocortone was started prior to the appearance of the scleredema.

#### Response:

There was no clinical evidence that the treatment instituted in any way affected the course of this child.

#### Summary of Autopsy Findings:

Microscopically the lungs were heavy and dark red. Microscopic sections showed evidence of extensive Hyaline Membrane formation with areas of considerable atelectasis. Other systems were largely normal, there were signs suggestive of cardiac failure.

#### Discussion:

Little is known about the etiology of this condition and the multiplicity of theories which have been advanced are in themselves sufficient to emphasize this. There are however, some main features which are emphasized by most investigators:

1. The infants are usually premature, weighing between 1000 and 2000 grams.
2. The incidence of delivery by Caesarean Section is always high in any series of these cases which has been studied.
3. The characteristic pattern of distress on inspiration and signs of poor air entry give a typical clinical picture.

The following main theories are held as to the causation of the Hyaline Membrane Syndrome:

1. The aspiration of amniotic fluid and the formation of a membrane. Blystad and Smith, Potter (1952), Clairieux (1953).
2. Circulatory factors and the possibility that the membrane is due to a transudation. Emery (1953), Miller, Berhle and Gibson (1951).
3. Alveolar injury and some abnormality of lung structure. Miller (1951) and Duran-Jorda (1953).

Much attention has been given to the chemical nature of the Hyaline Membrane. In Clairieux's review it represents incubated squamous epithelial cells from the liquor amnii. Other workers have claimed that this is aspirated liquor amnii. Recently view has been put forward from South Africa that the chemical structure of this substance is essentially the same as that seen in the nasal and oropharyngeal secretions. It is noteworthy that in nearly all cases seen in the Maternity Pavilion the nasopharyngeal secretions are usually considerably increased.

In Potter's opinion the primary condition is the formation of a membrane in a previously expanded lung producing atelectasis due to what she describes as "resorption atelectasis" by removal of air from previously expanded air sacs. Whether this is true or not it is difficult to assess. There is however little doubt that one cannot separate the problem of atelectasis and the presence of the Hyaline Membrane. It seems likely that some cases

die from a true atelectasis while others die from the presence of a suffocating membrane with a patchy atelectasis. How much a part any abnormality of the pulmonary vascular tree may play is difficult to assess but recently the Jäyky (1954) has emphasized the importance of the pulmonary capillary vessels in the expansion of the newborn lung.

#### Summary:

The Hyaline Membrane Syndrome is not uncommon in premature newborn infants, the child may survive or die.

It is one of the commonest single causes of neonatal mortality.

It occurs most commonly in premature or infants delivered by Caesarian Section.

The clinical picture is one of respiratory distress on inspiration and cardio-pulmonary

failure,

The autopsy findings are essentially those of membrane formation in the alveoli and plugging of the alveolar ducts.

The cause of the condition is an enigma but unfortunately no specific treatment is known.

#### References

1. Bruns, P. D., Shields, L. V.: American Journal of Obstetrics and Gynecology, 61: 953, 1951.
2. Bundesden, A. N., Potter, E., Fishbein, E. B., Bauer, and Plotzke, G. V.: J.A.M.A., 148: 907, 1952.
3. Blystad, D. W., Landing, B. H., Smith, C. A.: Pediatrics, 8: 5, 1951.
4. Clairieux, A. E.: Lancet II, 749-753, 1953.
5. Duran-Jorda, S.: Lancet II, 1361-1362, 1953.
6. Emery, J. L.: Lancet II, 885, 1953, and Lancet II, 1953.
7. Jäyky Acta Paediat., 43: 399, 1954.
8. Miller, H., Berhle, F. C., Gibson, D. M.: Pediatrics, 10: 1951.
9. Potter, E.: J.A.M.A., 125: 336, 1944. Pathology of the Newborn, Year Book Publishers Inc., 1952.

## Clinico-Pathological Conference

Deer Lodge Hospital

### Clinico-Pathological Conference No. 117

Mr. W. H. Age 63, White, Male.

January 8, 1952—Patient admitted bleeding per rectum so severely that he required transfusions on several occasions. Barium enema showed a constriction in the sigmoid. Sigmoidoscopy showed a rectal polyp which was negative for Ca. Blood WR—positive. He had received Salvarsan in 1918 for a positive WR. A course of 10,000,000 units of penicillin was given.

Patient is married and has one daughter. No G.I. symptoms previously, except is chronically constipated and has taken laxatives for many years. Variable pain in back or abdomen below left costal margin after meals for past year. Palpitation since 1920. No prolonged periods of palpitation, no dyspnoea with palpitation during day, sometimes at night and after meals. Previous to this year could walk 15-20 miles daily without dyspnoea. Some orthopnea. Uses 2 pillows. Some substernal pain and pain inside the left scapula. Has lost 27 lbs. in weight in the past year.

O/E BP 160/60, regular rate, thrusting apex, blowing systolic murmur over entire cardiac area. Diastolic blowing murmur since the infusion of one bottle of blood, also heard over entire cardiac area, not heard 3 days previously. Chest is barrel-shaped. X-ray chest suggests histoplasmosis. Left ventricular hypertrophy, calcification in the ascending aorta and arch is noted and bulging of the ascending aorta to the right suggesting an early aneurysm.

September 11, 1952—Previously noted narrowing of the upper sigmoid was not demonstrated at this examination. Liver just palpable. Laparotomy advised, patient refused and was discharged.

November 8, 1953—Admitted with history of blackouts, loss of weight and burning epigastric pain. Noted to be very nervous. Eating or doing something else will dispel his pain. Pain is worse after his meal, is relieved by lying on his left side and drawing his knees up. Pain radiates under the lower portion of sternum. Appetite still good. No melena for 1 year. Noticed a precordial heaving and a pounding in his chest for some time.

Examination: Pale, thin, neck pulsations, heaving pulsation in epigastrium and left side. Apex beat thrusting in 6th interspace 2 cm outside mid clavicular line. Loud murmur in systole and diastole rough in quality in this region transmitted up to the neck and down to the mitral and tricuspid area. BP 135/65; Corrigan type.

Hgb 64%; BSR 13mm; WBC 9,000; Stool specimens positive for occult blood. Total proteins: 5.3 gms%; Free HC1 in stomach. Bone Marrow suggests response to blood loss. Esophagus—Diffuse ischemic changes. Ba. series: Esophagus—diverticula, deformed duodenal cap, peristalsis, mucosal hypertrophy lesser curvature and cecum. Ba. enema—negative.

November 14, 1953—Dullness left chest posteriorly, absent breath sounds over same area.

November 16, 1953—Complaining of progressive weakness and swelling of feet for 1 week. Complaining also of indigestion and his bowels. Several collapses and dizzy spells. Appetite good but often regurgitates or mild vomiting after swallowing. Epigastric pain often, sharp in character, no relationship to food. Pale anemic appearance. Left pleural effusion diagnosed.

November 27, 1953—Rectal bleeding again. transfused.

December 1, 1953—Downhill course. Dullness, breath sounds in the left base. Some attacks of breathlessness. Some relief with Franol. Pulmonary infarct likely? Hgb 25%; Feces—occult blood positive—three specimens. BSR 20 mm. Urinalysis negative. WBC 5,000; N. 78%; L. 21%; E. 1%. Laparotomy delayed as he is poor surgical risk.

December 10, 1953—Pronounced dead 6.40 a.m.

#### Pertinent Autopsy Findings

##### Thoracic Cavity

The anterior surface of the right ventricle is covered with a white jelly-like sub-pericardial substance. The heart is increased in its transverse diameter. The heart weight 380 gms. A large aneurysm of the ascending portion and arch of the aorta is found. The left ventricle is enlarged and the wall measures up to 1.7 cms in thickness. All the valves are dilated. Cut sections of the left ventricle disclose scattered areas of fibrosis. The aortic valve measures 10 cms and is dilated. There is vast atheroma beginning at the root of the aorta and extending throughout its entire length. The coronary ostia are narrowed. The coronary arteries are explored and found to be involved in a moderately advanced atherosomatous process.

The left pleural cavity contains 200cc of clear straw colored fluid. No adhesions are found. The left lung weighs 400 gms. The pleural surface appears normal. The upper lobe is very feathery to the touch and distended. It has all the appearance of emphysema. The lower lobe is consolidated, but is soft to touch. The lower lobe and the lower portion of the upper lobe are congested in appearance. Cut sections of the upper and lower lobes reveal emphysema and congestion.

The right pleural cavity contains 350cc of clear straw colored fluid. The right lung weighs 500 ms. The middle and lower lobes are softly consolidated and appear congested. Cut sections of the lung reveal emphysema with congestive consolidation.

##### Abdominal Cavity

The abdominal cavity contains 3000cc of clear straw colored fluid. Portions of the large bowel are very dark in color suggesting blood in their lumen.

The liver weight 1360 gms. Portions of the ischial surface are dull and thick indicating an old perihepatitis. Cut sections of the liver reveal some increase of the fibrous stroma and mild congestion.

The stomach is opened and the cardia is grossly thickened. A considerable amount of hemorrhagic fluid content is present in the stomach. After this is washed away it is found that the entire

cardia of the stomach is involved in a diffuse infiltrating type of carcinoma, which is causing marked stenosis of the cardiac portion of the stomach. This carcinoma appears to be extending through the posterior wall of the stomach into the tail of the pancreas. The large bowel is dark colored and on opening is found to contain a considerable amount of blood clot.

#### Microscopic Findings

Stomach—Section shows the entire thickness of the stomach wall widely infiltrated by a network of scirrhouss adenocarcinoma. The tumor cells are in irregular columns and expanses with few attempts at acinar formation with much stroma. In the section taken the tumor has not replaced the mucosa but the mucosa was hypertrophic and hyperchromatic.

Pancreas—The peripancreatic tissues are widely infiltrated by metastatic tumor similar to that seen in the stomach. The pancreatic tissue itself does not show tumor, but the tumor follows the fibrous trabeculae between the pancreatic lobules.

Liver—Section shows congestion of the central vein areas but no tumor seen.

Lungs—Left—Section shows some atelectasis and commencing bronchopneumonic infiltration. Right—The lower lobe shows commencing bronchopneumonia, the upper lobe, compensatory emphysema.

Aorta—Abdominal Aneurysm—Section shows destruction of the wall with much fibrous tissue and cholesterol spaces and with infiltration of the media with lymphocytes and a few plasma cells. The infiltration is along the course of the vasa vasorum. Luetic.

Aorta—Thoracic Arch—Section shows advanced arteriosclerotic degeneration and commencing calcification. There is also round cell infiltration around the vasa vasorum resembling Luetic aortitis.

#### Carcinoma of the Stomach

Carcinoma of the stomach is the commonest form of malignancy affecting the internal organs. Because of its remarkable silence its cure rate is the worst in malignant disease. There appears to be a geographic and a racial factor in its incidence; in Czechoslovakia the incidence is 66% of all cancers in men, while in Britain the incidence is 22% of all cancers in men. Factors such as eating, drinking, tobacco and dental hygiene probably all play a part, as they are related to chronic gastritis, which is considered to be an important pre-cancerous condition. Among the Malays of Java and Sumatra the disease is almost entirely absent, whereas the Chinese on the same island have a high incidence. Pernicious anemia is a predisposing factor of importance. The usual age period is 60 years but it may occur earlier. 60% of gastric carcinomas occur in the pyloric region,

20% occur along the lesser curvature, and at the cardiac end, while most of the remaining 20% are along the greater curvature. About 5% of gastric ulcers are known to develop into carcinoma. The incidence among lower economic brackets is higher than those in higher economic brackets.

Symptoms of gastric carcinoma may be at first insidious, varied and misleading. The chief symptoms given are dyspepsia, loss of appetite with pain as a late manifestation. The gastric contents show low to absent free HCl, presence of lactic acid and blood. Loss of weight and anemia are common.

#### Gross Lesions

The papillary form is a large fungating mass which projects into the lumen of the stomach. The excavating form is only slightly elevated and becomes ulcerated early. The edges of the ulcer are raised and round, and the diameter is usually over 2.5 cms. The cut surface shows marked thickening of the wall with yellow flecks of necrosis and sometimes nodules on the serous surface. The diffuse infiltrating form, in which no real tumor is seen but a great thickening of the stomach wall. This may be local or diffuse. The local form occurs at the pylorus, where there is a dense ring of sclerotic tissue, which causes great pyloric stenosis and marked dilatation of the stomach. The cut surface is greatly thickened and densely hard. This diffuse type is called *linitis plastica*. There is no ulceration of the surface, but the mucosa is firmly tacked down to the underlying muscular coat. The diffuse form is of low malignancy and it is sometimes difficult to demonstrate cancer cells.

#### Microscopic Appearance

Carcinoma of the stomach frequently fails to form even rudimentary glands. The cells are usually arranged in cords or masses, or seen as isolated cells. The polypoid form is likely to show the best examples of glandular arrangement, the normal mucosa is replaced by atypical glandular tubules which penetrate the muscularis mucosae, spread widely in the submucous coat, and may finally appear on the serous surface. The glands are lined by one or several layers of cells with large hyperchromatic nuclei, so that the tubules appear much darker than the surrounding normal ones. In other cases the tumor is more anaplastic, glandular acini are poorly formed or completely absent and the cancer cells are arranged in masses or in single columns separated by a dense stroma of the scirrhus type. This is the usual picture in the ulcerating form. The most extreme anaplasia is met with in the diffuse infiltrating variety but in spite of anaplasia, the tumor is not highly malignant. The individual cells in this type are lost in a scar-like stroma so dense that it appears

to be strangling them. When mucin production is excessive the tumor is converted into a gelatinous mass; this is termed a mucoid carcinoma. It is believed by many that gastric carcinoma arises from a previous area of gastritis, either atrophic or hypertrophic.

#### Spread

(1) Local—Spread in the stomach wall may take place mainly in the loose submucosa. The tumor may penetrate the entire thickness of the wall and appear on the serous surface, from which tumor cells may spread by implantation over the abdomen (peritoneum, omentum, ovaries). The tumor may spread up into the oesophagus and never down into the duodenum. Spread to non-adjacent organs usually involves the liver or pancreas when the cancer is on the posterior wall of the stomach.

(2) Spread to lymph nodes is very common, the regional nodes draining the stomach are usually affected, but there may be distant spread along the thoracic duct to the supraclavicular and mediastinal nodes.

(3) Spread to distant organs by the blood stream, involves the liver first, most frequently via the portal vein. There may be blood spread to the lungs, central nervous system, kidney and bones. The abdominal organs, especially the ovaries may be the site of metastases, either by implantation or by lymphatic spread.

Kaufman adopts a histological basis for classifying carcinomas of the stomach into a cylindromatous cell tumor and a spheroidal cell tumor. The former may occur as an adenocarcinoma of the mucous cells. The cells may be arranged in solid masses. The spheroidal cell growths are more likely to give rise to a diffuse infiltration. In carcinomas of the stomach and other forms of carcinoma, the muscular coat, although destroyed, is seldom completely replaced, so that portions of it can be recognized in the section, whereas in a penetrating peptic ulcer all trace of muscular tissue disappears.

Karsner points out that carcinoma of the stomach is more frequent in men than in women. The clinical manifestations of carcinoma of the stomach are often dependent on the site of the tumor in the stomach, those in the pylorus producing early obstruction, while those in the duodenum may remain silent for some time. Exfoliated cancer cells can be identified in gastric secretions.

It should be mentioned that carcinoma of the cardiac end of the stomach may originate in the pharyngeal mucosa and is often squamous-cell type. Carcinoma in situ is a condition in which the mucosa may show a focus of pleomorphism with loss of cellular polarity confined to the mucosa.

Other tumors of the stomach include such benign ones as adenomatous polyp, gastritis polyposa benign carcinoid, heterotopic tumors, leiomyoma, granular cell, myoblastoma, hemangioma, hemangiofibroma, glomus tumor, lipoma, lymphangioma, neuroma, neurilemoma, neurofibroma; fibroma, osteoma, osteochondroma, endothelioma, dermoid cyst, teratoma, simple macroscopic cyst, inflammatory polyp or granuloma, eosinophilic granuloma.

Other malignant tumors are: lymphosarcoma, Hodgkin's Disease, Plasmocytoma, sarcomas, malignant carcinoid, carcinosarcoma and collision tumor.

#### References

Pathology: Boyd, 6th edition.

Surgical Pathology: Boyd.

Pathology: Karsner.

Tumors of the Stomach: A. Purdy Stout.

#### Syphilitic Aortitis

The spirochetes become lodged in the media and adventitia of the aorta in this disease and become resistant to treatment. The lesion begins in the aortic wall just distal to the cusps and spreads horizontally around the root of the aorta and distally as far as the mouths of the great vessels springing from the arch. The suprasigmoid portion is the site of election because it has an abundant lymph supply, the spirochetes being carried in the perivascular lymphatics. The gross changes may be traced down as far as the diaphragm, where they suddenly stop.

In the affected area the intima is raised into patches, at first smooth and pearly, but later pitted and scarred. The intervening tissue is wrinkled like the bark of a tree. The swelling of the intima may narrow the coronary ostia to a pin-point. The disease does not spread along the coronaries. Atheroma of the aorta often complicates syphilis. The adventitia is thickened and the vessel is often unduly adherent to the mediastinum. Owing to

destruction of the elastic tissue by the spirochetes there is a dilatation of the vessel and especially of the aortic ring. In this way an extreme degree of aortic incompetence may be produced, for the cusps are unable to come together.

There may be an associated syphilitic endocarditis present. This never occurs apart from syphilitic aortitis. There are two distinctive lesions: (1) the cusps are sclerosed and contracted, and the free edge shows a peculiar cord-like thickening. (2) there is widening of the commissure, a separation of the cusps where they ordinarily should meet.

The microscopic picture is that of periarteritis and mesaortitis. The earliest change is in the adventitia in the form of masses and linear streaks of lymphocytes and plasma cells. These are collected around the vasa vasorum owing to the distribution of spirochetes in the peri-vascular lymphatics.

The vasa vasorum are stimulated by the spirochetes to grow and invade the whole thickness of the media. There is later fibrous overgrowth of the intima which becomes hyaline. There is extensive destruction of elastic tissue, foci of inflammatory cells and necrosis in the media. The destruction of the elastic tissue is what leads to aneurysm production. New capillaries are formed which pass far into the media. The necrotic material is replaced by scar tissue, which gives the characteristic wrinkling to the aorta.

The substernal pain is probably due to inflammation of the tissue at the root of the aorta; symptoms of coronary occlusion and even sudden death may be caused by closure of the openings of the coronaries. The three great dangers are:

1. Aortic incompetence (commonest)
2. Stenosis of the coronaries.
3. Aneurysm.

#### References

Pathology: Boyd, 6th ed.

### Abstract

Clinical experience with Chlorpromazine (Largactil) in spinal anaesthesia: Morris, L., Mathews, W., and Mayer, J.: Curr. Res. in Anal. and Anaesth.: 33: 340, Sept.-Oct., 1954.

Chlorpromazine reduces nausea and vomiting by directly depressing the vomiting centre. This study was undertaken to determine whether chlorpromazine prevented or stopped nausea and vomiting occurring while the patient was analgesic by spinal anaesthesia.

Two groups of patients were studied. In the first group there were 23 cases who were given chlorpromazine for nausea and vomiting during spinal anaesthesia. In 21 of the 23 cases there was complete and immediate relief. The second

group contained seven cases in whom nausea and vomiting was deliberately induced by gastric traction. Each of these seven were then given chlorpromazine intravenously and a second attempt was made to induce vomiting by gastric traction. In this group none developed nausea and/or vomiting after the administration of chlorpromazine.

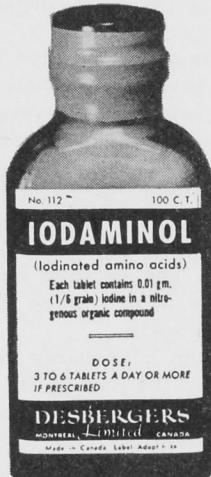
In both series the drug was administered by the intravenous route. The dose ranged between 12.5 and 37.5 mgms. The average dose was 17.5 mgms.

Side reactions of drowsiness and potentiation of premedication were observed but were not undesirable. Tachycardia was not noted and only mild hypotension occurred.

## THE MODERN IODINE MEDICATION

## IODAMINOL

Iodine - Amino Acids permit high dosages without the untoward effects common to iodides, Lugol's solution, iodo-proteins, iodo-lipids



Bottles of 100 tablets

Each IODAMINOL tablet contains  
 1/6 grain Iodine (the equivalent of  
 4 drops of fresh Lugol's solution)  
 combined with Amino Acids.

## INDICATIONS:

Simple and Exophthalmic Goiter; Toxemia of Pregnancy; Rheumatism; Septicemia; Arteriosclerosis; Tonsilitis.

## DOSAGE:

1 to 6 tablets per day,  
 or more.

**DESBERGERS**  
*Limited*

MONTREAL

CANADA

## Article

### The Effect of Alcohol on the Human Body

By Leon Greenberg, Ph.D.

Associate Director  
Yale Laboratory of Applied Physiology

#### Leading Scientist Describes the Action of Alcohol in the Body

Fifty or sixty years ago the whole question of action of alcohol on man was settled with great simplicity. One took a tumbler of alcohol and an egg; one broke the egg into the alcohol; egg coagulated and shriveled. By analogy man who imbibed became the tumbler and its contents. What happened to the egg happened to him. His brain and liver were the white of the egg which shriveled. Nothing remained to be added to the physiology of alcohol. That was it.

Since then science has taught us a few facts about the effects of alcohol upon the body. When alcohol is ingested into the body the first tissues with which it comes into contact are the surface tissues of the body. These include the mouth, the larynx, the back of the mouth, the esophagus, the lining of the stomach and of the intestines. Alcohol may irritate these tissues, because alcohol is an irritant in sufficiently high concentration. Irritation, if frequently repeated or continued, leads to a process of inflammation. If one inhales vapors of any irritant, smelling salts, for example, a red and painful inflammation of the nose results. Similarly, when strong alcoholic beverages are ingested, the throat and stomach are irritated, and frequent irritation of this kind may lead to inflammation. The inebriate, who then drinks his whisky neat, acquires a "whisky voice." His voice changes due to inflammation of the larynx.

Pure alcohol in high concentration is an intense irritant. Even a 50% solution of alcohol is an irritant. If a strong alcoholic beverage is swallowed, the surface of the intestinal tract is irritated and the immediate indication of this irritation is through the sensory nerves of these tissues. These nerves are effected precisely as they would be in the inhalation of smelling salts. In response to such irritation there is a reflex action. The reflex action results in the taking of a deep breath or two and in a quickening pace of the heart for two or three beats. This is the only stimulation produced by alcohol, and is not the result of any alcohol that has been absorbed into the body. It occurs before the alcohol is absorbed, and its duration is very brief. Nonetheless, this irritation is the basis for the old belief that alcohol is a stimulant. It is the basis for the once common use of a strong alcoholic beverage as a stimulant to threatened fainting.

#### Concentrations of Alcohol

At a concentration of 15% to 20% of alcohol there is only slight irritation. Below 5% or 6% concentration there is no irritation. The concentrations of alcohol occurring inside the body, even in the most severe state of intoxication, is only a fraction of 5% or 6%.

Since the highest concentrations of alcohol ever occurring in the body compatible with life are 5/10% or 6/10% alcohol, and since ten times as high concentration has no irritating effect on tissue, the belief that the alcohol in the body after drinking irritates the liver, tissues, and nerves, causing them to become inflamed and dry up, has no basis. The intoxicating effect of alcohol is due to a special sensitivity of nerve cells to the effects of alcohol. These nerve cells are neither destroyed nor inflamed by the alcohol, rather their function is altered, or depressed, and the function remains altered only so long as the alcohol is there. As soon as the alcohol disappears, the effect disappears. The concentration of alcohol in the blood and in the brain, which alters or abolishes the functions of the brain, is far lower than that which would have any appreciable effect on any other tissues in the body. But from its very first effect on the brain, alcohol is a depressant, not a stimulant.

#### Intoxicating Effects

While the intoxicating effects of alcohol are exercised on the brain, the disturbance is exhibited in the organs controlled by the particular parts of the brain, such as the tongue, the legs, and the eyes. The intoxicated person slurs his words, he staggers, and he appears drunk, not because of the alcohol in his ankles or his knees or his tongue, but because of the effect of alcohol on the portions of the brain which control these various behaviors. The degree and the site of the disturbance of the brain depends on the concentration of alcohol.

Alcohol is an anaesthetic and has the property of descending effect common to all anaesthetics. In small amounts it affects the upper part of the brain. In somewhat larger amounts it begins to involve the midportions of the brain, which includes the motor areas. As the concentration of the alcohol in the blood rises, it begins to involve the deeper and more primitive portions of the brain, until it finally reaches the lower portion of the brain.

#### Upper Brain Area Disturbed

At a concentration of 5/100% of alcohol in the blood—a concentration that will be produced by about two highballs—only the uppermost portions of the brain are disturbed. This is the part of the brain that is concerned with inhibitions, restraint, and judgment. A person with such a concentration of alcohol resulting from two highballs or two cocktails feels that he is sitting on top of the world. Many of his normal inhibitions have

vanished. He takes personal and social liberties of all sorts as the impulse prompts him. He is usually long-winded, boastful, and pugnacious. He has an obvious blotting of self-criticism. He has a feeling of remoteness, coupled with odd sensations when he rubs his fingers together or touches his face. He is usually amused at his own clumsiness or perhaps at what he interprets to be the perversity of inanimate objects.

Suppose a man takes double this amount of alcohol in the form of four or five highballs or cocktails. This adds up to one-tenth of one per cent of alcohol. Now the disturbance begins to descend into the lower motor areas of the brain. The first indications of staggering appear. Such an individual begins to have trouble putting on his overcoat. He fumbles with the keys to the door. When he tries to talk, his tongue refuses to say the words.

#### Motor Area Disturbed

At a concentration of .20% of alcohol, the function of the entire motor area of the brain is disturbed. With this concentration the individual tends to assume a horizontal position; he needs help to walk or undress; he is easily angered; he shouts, groans and weeps.

At a concentration of .30% the even lower, more primitive areas of the brain, concerned with sensory perception, are dulled. The victim is in a stuporous condition; although aware, he has little comprehension of what he sees or hears.

At a concentration of .40% or .50% the functions of the perceptive areas of the brain are cut off. He is completely unaware of his environment; he is in a coma; he is anaesthetized.

#### Lowest Level Affected

At a concentration of .60% or .70%, the lowest level of the brain, the centres of respiration and heartbeat, cease to function, and death rapidly results. This would be called death from acute alcoholism. Although one finds many hospital records with the notation "death due to acute alcoholism," this occurrence is rare, because drinking is self-limiting. To attain a lethal concentration one must drink more than a quart of whisky in a short time. The rapid ingestion of this amount of whisky will most likely result in vomiting and loss of most of it. The only way in which such high concentration can be attained is by drinking over a considerable period of time, and then it becomes self-limiting. Long before an individual has attained a lethal concentration, he cannot bend his elbow any more, so he stops. In many instances recorded as death from alcohol, exposure or injury incidental to intoxication was the immediate cause of death.

Throughout the entire progression of effects the concentrations of alcohol that occur in the body are far too low to cause any permanent damage to the brain. Alcohol does not dry up the

brain; it does not erode the tissue. It causes intoxication by disturbing the functions of the nervous system. The disturbance is entirely of function and it is reversible. It disappears when the alcohol is gone. This progression of effects of alcohol with increasing concentration is not unique one. It can be produced indistinguishably by any of the other volatile anaesthetics such as chloroform or ether.

#### New Theory

The present theory as to how anaesthetics act is that they temporarily stop the nerve cells from utilizing the oxygen that is brought to them. The reason that theory is held is that the intoxicating effects of alcohol, ether, or chloroform have a very marked resemblance to the effects of anoxia from insufficient oxygen. One can experience intoxication very similar to alcohol intoxication from insufficient oxygen. It has been observed that in many instances mild and moderate states of intoxication are relieved by inhaling oxygen.

Besides intoxication, there are other effects of alcohol on the body and on the tissues of the body. They have nothing to do with intoxication, as such, they are effects nevertheless. There is considerable evidence that in severe intoxication the strain in the liver may be inadequately handled by the liver organ. There is no evidence that this is due to direct contact of alcohol on the liver tissue. It is probably due to an inadequate secretion of the glandular hormone called choline, which is essential for proper handling of fat in the liver. When, often after severe intoxication, the liver is found to be swollen and yellow with fat. Frequency repetition of this phenomenon in the excessive drinker probably leads to cirrhosis of the liver.

#### Alcohol as Appetizer

Alcohol in moderate amounts leads to an increase in the flow of gastric juice and to contractions of the stomach. The sensations of hunger develop. This is the reason for the use of small amounts of alcohol as appetizers. The medical prohibition of alcohol for those who have gastritis or ulcers is because of this increase of gastric juice. There is no evidence that alcohol causes ulcers and no evidence that moderate amounts of alcohol interfere with digestion. Large amounts of alcohol interfere with digestion altogether.

Again, alcohol in large amounts may effect water balance in the body. It was once prevalent belief that alcohol exercised a drying out or dehydrating action in the body, just as alcohol does outside the body. Under this concept alcohol was supposed to dry out the body and give rise to intensive thirst. Actually in severe intoxication there is no loss of water from the body, but a shift in the distribution of water in the body.

The body normally consists of about 65% water. About two-thirds of this water is within the cells of the body and is called the "intracellular

water." About one-third of it is "extracellular," or outside of the cells. The amount of water outside the cells is ordinarily maintained quite constant. The water within the cells fluctuates. It increases after drinking water, and decreases after excretion of urine or sweat. When this water inside the cells diminishes, there is a sensation of thirst.

In intoxication, there is no loss of water, but the water shifts from the intracellular to the extracellular spaces. The water within the cells diminishes while that outside the cells increases. This explains the feeling of thirst after intoxication.

Acquired tolerance to alcohol is believed by some to be an actual physiological result of drinking. There is no doubt that there may be wide difference in the effect of the same amounts of alcohol upon different individuals, just as there may be differences in its effects upon the same individual at different times. The effect of alcohol is usually judged by the behavior of the individual, and these differences of behavior are often ascribed to differences in tolerance. However, behavior in mild or moderate intoxication is strongly dominated by environmental and psychological factors, rather than tolerance.

The rate at which alcohol is absorbed is one of the factors which has erroneously been called tolerance. People often say that one person has more tolerance for alcohol than another, without relating the differences to the nutritional states of the two.

Another explanation for the differences in behavior between individuals is related to the temperament of the individual, differences in the personality, or the tempo of the temperament of the individual. This tempo is usually increased by alcohol, and therefore behavior depends on where each person is situated on the temperament level. For instance, a phlegmatic person who takes a drink or two becomes more talkative and emotional; the normally talkative and emotional person becomes the life of the party; the person who is the life of the party when sober becomes a nuisance when drunk. It depends on where each starts. Each of these behaves differently with the same amount of beverage, because their temperaments are different.

#### Choice of Beverage

In many of those instances where differences in behavior of different individuals are attributed to the nature of beverage used, it is more than probable, in the light of what I have just pointed out, that the choice of the different kinds of alcoholic beverages has in itself an association with the personality of the individual. Therefore, what is often referred to as reaction to different beverages is in reality simply the reaction of different personalities to alcohol.

In connection with the different kinds of beverages let me mention that the widely prevalent belief that mixing drinks, or alternating whisky and gin, causes more rapid or intense intoxication than the same amount of either beverage taken alone, is false. Actually this mixing may make the drinker sick, just as the mixing of such flavors as onions and chocolate would make one sick. Frequently no distinction is made between being sick and being drunk. Often people drink, get sick, and then relate how drunk they were.

Furthermore, in its early stages, intoxication is profoundly influenced by suggestion. The man who believes that mixed drinks will make him drunk more quickly than unmixed drinks probably finds that they do. He anticipates a result and is not disappointed.

Still another explanation for differences in behavior in mild and moderate intoxication lies in the element of control or experience. This factor may play a part in what is known as habituation to alcohol, the process by which a man becomes accustomed to alcohol, and appears to get less intoxicated or not intoxicated at all on quantities that at one time seemed to make him drunk. Once with alcohol, he acquires experience and practice in controlling these reactions. He comes to know and anticipate the effects and consciously or unconsciously prepares himself for them. He "gets his sea legs."

None of these explanations for the differences in behavior in mild and moderate intoxication is physiological tolerance. Of course, they do not exclude tolerance as a factor, but if it is a factor, it is so completely interwoven in the total behavior with environmental and psychological factors so as to make its identification difficult.

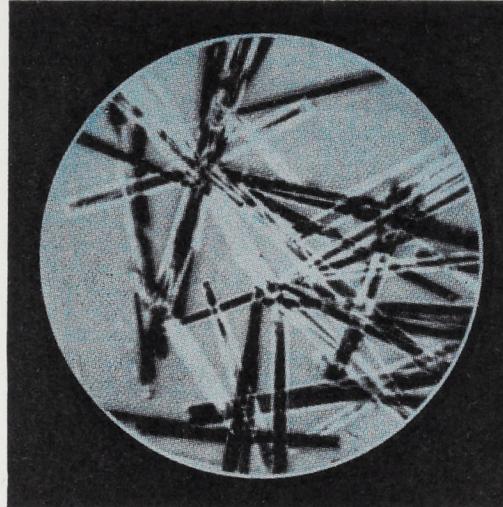
#### Still Much to Learn

It is quite obvious how complex a role the various and subtle physiological effects of alcohol play in the problems of alcoholism. In recent years much new knowledge has been acquired, but a lot still remains to be gained. Tempting though it may be to make any premature inference, we must be cautious until we know all the facts; we must reserve judgment until every facet of the problem has been studied.

The problems of alcohol are composed of many aspects and each aspect, sociological, psychiatric, medical, psychological, economic, physiological, and religious, as long as it is viewed by itself, remains just an abstraction. Only when each is integrated with all of the other components of the problem will it afford any progress toward a possible solution.

Reprint from INVENTORY, Journal of the N. C. Alcoholism Rehabilitation Program.

Distributed by  
The Committee on Alcoholism for Manitoba  
588 Broadway Ave., Winnipeg, Man.



*In tension  
and hypertension*  
**SEDATION  
WITHOUT  
HYPNOSIS**

# SERPASIL

(reserpine CIBA)

A PURE CRYSTALLINE ALKALOID OF RAUWOLFIA FIRST  
ISOLATED, IDENTIFIED, PURIFIED AND INTRODUCED BY CIBA

In anxiety, tension, nervousness  
and mild to severe neuroses— as  
well as in hypertension— Serpasil  
provides a tranquillizing effect  
and a sense of well-being.

**TABLETS:** 0.1 mg., 0.25 mg., 1.0 mg.

**ELIXIR:** 0.25 mg. per 5 cc.

**AMPOULES:** 5.0 mg. per 2 cc.

**CIBA**

**COMPANY LIMITED, MONTREA**

*"Serpasil" is a registered trade-mark*

## Editorial

S. Vaisrub, M.D., M.R.C.P. (Lond.), F.R.C.P. (C.), F.A.C.P., Editor

### Refresher Course, April, 1955

*In April Rome was founded;*

*Shakespeare died;*

*The shot whose sound rang out from Concord town  
And brought an avalanche of echoes down,  
Shaking all thrones of tyranny and pride,  
Was fired in April;  
T'was April when they laid the Martyr's crown  
On Lincoln's brow.*

—Samuel Valentine Cole, *In April.*

*And not a girl goes walking*

*Along the Cotswold lanes*

*But knows men's eyes in April  
Are quicker than their brains.*

—John Drinkwater, *Cotswold Love.*

It is quite obvious that the authors of the marginally quoted, April-dedicated verses did not anticipate that refresher courses in Medicine were destined to take place in Winnipeg during the month of April in the twentieth century. Could Cole have foreseen it, he would have, undoubtedly, added it to his impressive list of historic events. Had Drinkwater envisaged it, he would have made mention of the contrast between Cotswold and Manitoba, for in the latter there exist men who do not allow their eyes to be quicker than their brain, even in April; men who do not abide by the frivolous Code of Spring.

Who are these men to whom pursuit of knowledge is more important than the pursuit of love? The answer is obvious. They are the doctors of Manitoba — truly remarkable men. Their fancy refuses to turn lightly to the expected thoughts; their ears are deaf to the amorous messages of April breezes; their eyes are blind to the procreative, resurgent forces of Spring. To them the renewal of Nature is a call for renewal of Knowledge, and the whisper of the breezes—a reminder of refresher courses!

The Annual Refresher Course has become a time honored tradition. Sponsored by the Committee on Post-Graduate Studies, Faculty of Medicine, University of Manitoba, it has grown from humble beginnings in 1935 to its present important status in the field of post-graduate medical education. Carefully planned, and well prepared lectures, demonstrations and round table conferences have helped to make the course as popular as it is instructive, as attested by the ever growing attendance.

This year by planned "coincidence" the Annual Refresher Course is preceded by a symposium on "Modern Trends in Treatment," sponsored by the Manitoba Medical Association, and the Committee on Post-Graduate studies together with Lederle

Laboratories. Featuring six illustrious speakers from near and far, and open to all members of the Medical Profession, this symposium will be viewed by those who participate in the course as a fitting prologue to the interesting play that they are about to witness. They will be only too happy to add this day to the three that they have already allotted to it. They know that the time will be well spent, for in the words of Browning:

"June reared that bunch of flowers you carry  
From seeds of April's sowing."

### Neonatal Mortality

"Our birth is nothing but our death begun."

—Edward Young, *Night Thoughts.*

The above quotation, a poetic expression of a sad philosophic reflection upon the fleeting brevity of life, finds, when taken out of its context, and interpreted literally, a direct applicability to the tragic fact of neonatal mortality, for it may well be the cry of the dying newborn. Death at life's threshold is a challenge to Medicine, a source of deep concern not only to the pediatrician, but also the obstetrician, the anesthetist and the general practitioner, who face the problem in their daily work. It is with the appreciation of the joint nature of the problem that the Neonatal Mortality Research Project in Manitoba was launched, a project transcending the boundaries of any one specialty.

The Manitoba Medical Review takes pleasure in assigning a regular column under the heading "Problems of the Newborn Infant", for the publication of case reports and commentaries submitted by the members of the Neonatal Mortality Research Project, the first of which appears in this issue. The series is ushered in by Dr. H. Medovy in a guest editorial, which should prove of interest to everyone. Future communications will be awaited with eager anticipation.

### Reduction in Infant Mortality and Morbidity

It is common knowledge that the death rate in infancy and childhood has been reduced sharply in the last decade. It may not be so well known that the mortality in the first 48 hours has hardly changed at all. Babies still die of respiratory complications, intracranial hemorrhage, congenital malformations and extreme prematurity. Many babies die because the supply of oxygen upon which they depend during their intra-uterine existence has been interrupted or diminished at term due to a variety of causes so that while they make

a few feeble efforts at extra-uterine existence they cannot survive more than a few minutes or hours.

To find out why babies die is to discover from time to time means by which future deaths may be prevented. Under the auspices of the University of Manitoba, the Departments of Paediatrics, Obstetrics and Pathology have combined their efforts and with the assistance of a Dominion-Provincial grant a careful detailed case study is in progress at the Winnipeg General and St. Boniface Hospitals. Every stillbirth and every neonatal death is reviewed. The maternal history, the obstetrical course, the anaesthesia, the nursery records—all are examined to determine the various factors which may determine life or death for the offspring. Careful pathological studies are underway in an effort to clarify conditions hitherto unknown or poorly understood. The Bacteriologist and Serologist add their specialized knowledge.

Fact finding and gathering of statistical information is hard work and is time poorly spent if the information obtained thereby is not made available so that those who read may learn. The lessons learned by the Project group have value only if this knowledge is disseminated. Newborn lives may be lost because we do not know enough about a particular condition. We must await the results of research, investigation and experiment. Newborn lives should not be lost however, if the means of saving them is known. It is necessary however to see that this knowledge is made readily available to the physician in practice who may not have the opportunity of seeing large numbers of newborn infants under the conditions which prevail in a large well-staffed metropolitan hospital.

With this object in mind, it is proposed to publish monthly case reports having to do with the problem of the newborn period. Short case reports and commentaries will be the rule. The authors will be members of the various University departments concerned with the Neonatal Mortality Study Project. The first report is contained in this issue.

Harry Medovy, M.D.,  
Professor and Chairman,  
Department of Paediatrics.  
Guest Editor.

## Manitoba's Medical Men

### XIV. Legislation

From time to time the executive of the Manitoba Medical Association has had to deal with legislation or proposed legislation that affects the profession. A problem concerning the psychiatrists was discussed at the last meeting of the executive in regards to mandatory inquests into all deaths resulting from electric shock therapy. In deaths subsequent to other forms of therapy, the coroner may order an inquest at his discretion. The reason

for the holding of inquests in electric convulsive therapy deaths is because the coroner has received a verbal directive from the attorney-general's department, through the department of health.

This matter was referred to the attorney-general's department by the College of Physicians and Surgeons of Manitoba, and a reply was received from the deputy attorney-general to the effect that there were no regulations under the Coroner's Act or the Hospitals Aid Act making inquests mandatory in any case of death from any cause, but that the coroner could order an inquest if he considered it to be in the public interest. The attorney-general has overriding powers over the coroner and can order an inquest into any case.

The situation is of utmost concern to the profession and to the public, because there are many cases requiring shock therapy that are potential risks and it is understandable that a psychiatrist faced with an inevitable inquest in case of death would hesitate for the reason that an inquest in the minds of the public implies that there is something wrong when, in effect, modern treatment given in an institution by a competent, well-trained specialist. To treat him differently than a surgeon, obstetrician or gynecologist would be treated under similar circumstances is to discriminate against one group of specialists. The public is vitally concerned because if the risk of death is very great a patient may be denied his only hope of recovery.

The whole problem is under study and it is hoped that a solution will be found before the annual meeting of the association.

L. A. Sigurdson, M.D.

## Letter to the Editor

Winnipeg, Man., January 18th, 1954  
To the Editor.

Dear Sir:

"How much does a backache cost?"

A growing number of people are finding the costs of medical care increasingly burdensome. In groping about for the cause of these increased costs many people blame the doctor. Even the common phrase "doctor bills" seems to permit the assumption that the doctor is the primary culprit.

One of the real causes of the rising costs of medical care was well illustrated in the Winnipeg Tribune (January 13, 1954) by the eminent medical specialist Dr. Walter Alvarez. On the basis of what is good for Alvarez is good for the Canadian people, Dr. Alvarez states that if he had a backache about which there is some doubt—(and what backache is free from doubt?)—he would want the following:

"I would want an internist to check me all over first. Then I would want a neurologist to look for signs of injury to some nerve in my leg. I would

want to consult with an expert on arthritis to see if he thought my story was more that of an arthritic trouble than that of a disc. I might want to have my spinal fluid tapped and examined to see if there were signs of irritation in the spinal canal.

I might want an expert X-ray man to inject a little air into my spinal canal. With this he might see a displaced disc projecting into the space. I would like to talk to an expert nerve surgeon who has operated on hundreds of discs and has accumulated much wisdom in regard to the differential diagnosis. I would want to talk to an expert orthopaedist to see what he thought of the strains in my back and lower extremity.

"All these men agreed that I probably had a displaced disc, I would be willing to go ahead and be operated on. If, however, they thought it was more likely that my trouble was due to my old fibrosis, I would not want to be operated on."

Thus Dr. Walter Alvarez directs the investigation of his own backache.

By a simple accounting, based upon minimum rates, the Alvarez backache would cost as follows:

#### Consultations

Consultations and examinations by each of the specialists (internist, neurologist, expert on arthritis, nerve surgeon, orthopaedist) @ \$10.00 \$ 50.00

Note: The cost of consultation with a specialist has not changed for the past 25 years, during which time the purchasing power of the dollar has fallen to at least one half. This fee might be compared with the fee of a T.V. repairman at \$5.75 up to 5 p.m. I am happy to not know the cost of T.V. emergency service during the evening or night.

#### Tests and X-rays

General tests, urine, blood, chest and kidney X-rays	50.00
Lumbar spinal puncture	25.00
X-ray studies of lumbosacral region	25.00
Special myelogram X-rays (air injected into spinal cord)	35.00
Examination spinal fluid	15.00
<hr/>	
	\$ 150.00

Thus the total cost of professional services and tests for the diagnosis of the Alvarez backache would run in the neighborhood of \$200.00. It ought to be emphasized that this is before any treatment is even considered.

Many of us in practice can remember when a backache, even of the Alvarez variety, would cost from \$3.00 to \$10.00 including treatment as well as diagnosis. There is no doubt that with modern scientific advances our treatment of some (not all) varieties of backache is better than in the \$3.00 era. But when considering today's "doctor bill", one should keep in mind that the difference in cost between the Alvarez backache and the \$3.00 variety is not due to a "doctor's bill" but to the growth of scientific tests in the modern practice of medicine and surgery.

It might be incidentally mentioned that with any system of health insurance, whether under private or government control, the stalwart citizen, without the Alvarez backache, must pay toward this \$200.00 Alvarez backache every bit as much as the poor fellow with it.

The Alvarez backache, seldom serious and never fatal, is one of the many symptoms afflicting mankind for which modern expensive methods of investigation may be demanded. What this demand may do to the aggregate cost of national health is just short of astronomical.

Yours truly,

A. A. Klass, M.D.

## Future Events

### Winnipeg Medical Society Meeting

The Winnipeg Medical Society Meeting on March 18, 1955 will be held under the auspices of the Canadian Arthritis and Rheumatism Society. The speakers will be: Dr. M. Ogryzlo of Sunnybrook Hospital, Toronto, who will speak on "The Use of Cortisone and Butazolidine in Rheumatoid Arthritis", and Dr. T. E. Hunt of the University of Saskatchewan, Saskatoon, whose topic will be "Rehabilitation".

### Lectures and Discussions on Current Medical Problems

The Mayo Clinic and Mayo Foundation announce a 4-day program, April 19 - 22, 1955, inclusive, of lectures and discussions on problems of current interest in the general fields of medicine and surgery. The number of physicians and surgeons who can be accommodated is necessarily limited. Those wishing to attend should communicate with Dr. N. W. Barker, Mayo Clinic, Rochester, Minnesota, before March 1, 1955. Applications will be honored in the order in which they are received. There is no registration fee.

*"Geriatric medicine,  
to be fully effective,  
must be largely  
preventive medicine"* \*

## **"MEDIATRIC"**

### *Steroid-Nutritional Compound*

Each capsule contains:

"Premarin" (conjugated estrogenic substances [equine]) ..... 0.25 mg.  
Methyltestosterone ..... 2.5 mg.

PLUS

Ascorbic Acid, Thiamine, Vitamin B<sub>12</sub>, Folic Acid, Ferrous Sulfate, B.P., Brewers' Yeast, and d-Desoxyephedrine Hydrochloride.

Also available in liquid form.

\*Stieglitz, E.J.: J.A.M.A. 142:1070 (Apr. 8) 1950.

*Ayerst, McKenna & Harrison Limited  
Biological and Pharmaceutical Chemists  
Montreal, Canada*



*Ayerst*

## Association Page

**Reported by M. T. Macfarland, M.D.**

### **Dr. S. Vaisrub Appointed Review Editor**

Samuel Vaisrub, the newly appointed Editor was graduated in Medicine, University of Manitoba, 1932. Following general practice in rural Saskatchewan he served with the Royal Canadian Army Medical Corps in Italy and North-West Europe.

He took post graduate training in England and successfully wrote the examinations and received the M.R.C.P. London, later he became a F.A.C.P. In 1951, Dr. Vaisrub was successful in passing the Fellowship examinations in the Medical Division of the Royal College of Physicians and Surgeons of Canada. He is a Lecturer in Medicine at the University of Manitoba, a member of staff of St. Boniface and Deer Lodge Hospitals.

Dr. Vaisrub has displayed a keen interest in medical history and has contributed various articles to Canadian medical journals. His museum of medical phraseology is well known to visitors at Deer Lodge hospital. The Review and the newly appointed Editor warrant the sympathetic cooperation of the profession.

#### **Acting President**

The resignation of Dr. R. W. Whetter shortly after his election to office at the Annual Meeting posed a problem for the Executive Committee. The Constitution and By-laws provided that the First Vice-President shall act in the absence of the President, also that a vacancy in the Executive Committee may be filled by the latter body, but it was not considered that the power extended to those officers who are specifically elected at the Annual Meeting by the membership at large.

The matter was resolved when the First Vice-President, Dr. Ruvin Lyons, was appointed Acting President, and no selection was made to fill the vacancy for the year.

#### **Nominations to Board of Trustees, Manitoba Medical Service**

As a result of the mail ballot which was conducted during the month following the Annual Meeting in October, 1954, the following seven medical members were selected for nomination to the Board of Trustees, Manitoba Medical Service for a three-year period 1955-57. Drs. S. A. Boyd, A. T. Gowron, T. E. Holland, M. S. Hollenberg, Eyolfur Johnson (Selkirk), P. H. McNulty and A. R. Tanner.

These members will assume office at the Annual Meeting of the Manitoba Medical Service to be held in March. A vacancy on the Board caused by the resignation of Dr. R. W. Whetter is to be

filled by Dr. K. R. Trueman who was nominated by the Executive Committee of the Association for the unexpired term.

#### **Representatives to General Council Canadian Medical Association**

The Annual Meeting of the Canadian Medical Association will be held in conjunction with that of the British Medical Association at the Royal York Hotel, Toronto, June 17th-24th, 1955. Both sessions follow the British Commonwealth Medical Conference.

The following representatives have been selected from the Manitoba Division: Drs. A. R. Birt, E. F. E. Black, J. E. Hudson, R. Lyons, M. T. Macfarland, J. McKenty, G. T. McNeill, R. W. Richardson, L. A. Sigurdson, W. F. Tisdale.

The Acting President, Dr. Ruvin Lyons will be the Manitoba representative on the nominating Committee and Dr. R. W. Richardson has been nominated as Divisional representative to the C.M.A. Executive Committee (1955-56), Dr. F. T. Cadham is the nominee of this division to receive Senior Membership in the C.M.A., an honour reserved for those who qualify by age and previous membership in the federal association.

#### **Expenses of Executive Committee Members**

For several years a resolution was on the books of the Association that members travelling long distances to attend meetings of the Executive Committee should be reimbursed for out-of-pocket travel expenses. No claims were made, and the matter was recently raised when one of the District Societies suggested that payment to attending members should be made whether or not a statement is submitted. The Honorary Treasurer was requested to study the matter and present a report. The recommendation was that payment be made for various zone areas as follows:

1. 15 - 25 mile radius from Winnipeg	\$ 3.00
2. 25 - 60 mile radius	5.00
3. 60 - 115 mile radius	10.00
4. 115 - 150 mile radius	15.00
5. 150 - 225 mile radius	20.00
6. The Pas and Flin Flon—Actual plane fare plus \$15.00.	

#### **Hospital Relations**

Dr. C. E. Corrigan was selected by the Executive Committee as Chairman of the Hospital Relations Committee. At the first meeting it was agreed that information concerning the hospital accreditation program should be secured, and that complaints from Association members would be considered only if referred to the Committee through the M.M.A. Executive Committee.

### Public Relations

One of the most active Committees of the Association is that which bears the above caption. The chairman of the Manitoba Division Committee is also a member of the C.M.A. Public Relations Committee, and receives the report of deliberations on the national level. At present consideration is being given to measures by which improvement may be brought about. A recommendation that the College of Physicians and Surgeons, Manitoba Medical Association, Winnipeg Medical Society and Manitoba Medical Service cooperate to employ a part-time consultant, is being actively investigated. One of the Western provinces has set up a Public Relations within the Profession Subcommittee.

### Manitoba Medical Service Membership and Procedures Committee

At the request of the Manitoba Medical Service a committee has been set up by the Manitoba Medical Association Executive Committee with terms of reference as follows:

1. "THAT this Executive appoint a committee composed of members from each block on M.M.S., plus the Administrator of M.M.S., the Chairman of the Board, and the Chairman of the Finance Committee, to prepare a guide for M.M.S. as to what should be considered membership within M.M.S."

2. "THAT this committee consider the procedures and services which may be regarded as essential medical care or those which may be regarded as non-essential or luxury services and for which M.M.S. is not responsible".

In selecting a committee the following points were kept in mind:

1. To have representation from main teaching hospitals.

2. Those who have had some experience in M.M.A. or M.M.S. or have been known to express

opinions on various subjects through letters or bulletins, etc.

3. Those who have had experience in practice over a reasonable period of time. Members selected were as follows:

M.M.S.—Dr. P. H. T. Thorlakson

Dr. M. R. MacCharles

Dr. J. C. MacMaster

M.M.A.—Dr. R. Lyons

Dr. J. E. Hudson

Dr. K. R. Trueman

Dr. M. T. Macfarland

Internal Medicine—Dr. A. B. Houston

Dr. A. Hollenberg

Paediatrics—Dr. S. A. Boyd

Neurology and Psychiatry—Dr. Gordon Stephen

Surgery—Dr. J. W. R. Rennie

Dr. L. R. Rabson

Ear, Nose and Throat—Dr. W. Alexander

Ophthalmology—Dr. W. C. Guest

Dermatology—Dr. S. Berger

Dr. A. R. Birt

Radiology—Dr. A. E. Childe

Dr. T. D. Wheeler

Obstetrics and Gynecology—

Dr. A. M. Goodwin

Dr. B. D. Best

Anaesthesia—Dr. Marjorie Bennett

Pathology—Dr. O. C. Trainor

General Practice—Dr. G. F. Hamilton

Dr. A. T. Gowron

Dr. W. J. Boyd

The whole committee met on January 24 and discussed the general problems for which the Committee had been convened, and requested the Sub-Committee to bring recommendations to the whole Committee within a brief period.



## Social News

Reported by K. Borthwick-Leslie, M.D.

After the Xmas and New Year's activity, our profession seems to have subsided into semi-oblivion socially, even the Association "Stork" is on a semi-sit down strike.

◆

Of course the holiday minded members, who are relaxing in Florida, California, Hawaii, etc., are probably making news, or even history, but so far I've had no official reports from my grape-vine scouts. Probably due to their absence, and they seem to be too numerous to mention—those at home are too busy for much activity. I understand that my two pals are all organized to catch that T.C.A. plane on March 1st, but officials tell me that I require more than one new hat, beautiful new luggage (Xmas) and costume jewellery, even pending donning a grass skirt on arrival, so Honolulu beware. Incidentally, if I do catch that plane, no gossip from me in March, and let's hope no gossip about me.

◆

Speaking of holidays, the Members of the Manitoba Branch of the Canadian Federation of Medical Women were privileged last week to hear Dr. Marjorie Bennet's report and see her beautiful photographic illustrations of the 7th Congress of the Medical Women's International Association, Gardoni, Italy. Marjorie reports a very successful meeting and wonderful vacation.

Newly elected officers of the local branch are President, Dr. D. Huggins; Secretary, Dr. Margaret McGuire; Treasurer, Dr. Ruth Mathers.

◆

Dr. S. S. Peikoff has been appointed president of the Medical Staff, St. Boniface Hospital. Also elected were Dr. H. Guyot, 1st Vice-President; Dr. Paul Green, 2nd Vice-President; Dr. R. T. James, Secretary; Drs. J. Downey and L. R. Rabson, Members.

◆

Charles Hollenberg, M.B.E., M.D.M.Ch. Orth. F.R.C.S. (Eng.), F.R.C.S. (C.), Orthopaedic and Traumatic Surgery, announces that he is now independently established at 603 Boyd Bldg.

Drs. Norman Merkeley, Reid Taylor and Paul Green, were the guest speakers at the Clinical meeting, Feb. 17, of the Brandon District Medical Society. They report an excellent attendance and entertainment.

◆

Due to unexplainable mismanagement on my part, missed the Annual General Practitioners' Valentine Banquet, but from all reports, the usual good time was had by all. Highlights being the presentation of Parchments to the Past Presidents of the Association, and of course Athol Gordon's toast to the ladies, with Mrs. Tony Gowron's reply. I do hope the audience that night is not to be used by Athol, on March 7th, quote: "Women's Advertising Club Members are having their annual Boss 'n Slave dinner. Speaker, Dr. Athol Gordon, Provincial Coroner.—Topic: "People As I See Them", from the Coroner's Point of View?

◆

February 5th, in the R.C.A.F. Protestant Chapel, Stevenson's Field, Marguerite Merle Musgrove, elder daughter of Dr. and Mrs. W. M. Musgrove, became the bride of Fl/Lt. Douglas Craig Danard, elder son of Mr. and Mrs. M. B. Danard, South Burnaby, B.C.

The reception was held in the R.C.A.F. officers' Mess. Mr. and Mrs. Danard motored to Chicago, Toronto and Ottawa, enroute to North Bay, Ont., where they will reside. It was fun meeting again, so many old friends at the reception.

◆

Dr. and Mrs. F. R. Holmes, Port Erie, Ont., announce the birth of Carol Ann, Feb. 1st, a sister for Sharon and Alison.

◆

Dr. and Mrs. Phil Barnes, Estevan, Sask., happily report the arrival of Enid Faye, December 6th, 1954.

◆

Dr. and Mrs. C. D. Ellis announce the birth of Craig Spencer, Jan. 26th, 1955.

*Intrahepatic and extrahepatic ducts  
60 minutes after injection with  
Cholografin. In spite of calculi in the cystic  
duct which prevented gallbladder filling,  
the biliary ducts are well opacified*

**an important new  
diagnostic tool in  
cholangiography and  
cholecystography**



# **Cholografin**

**SQUIBB IODIPAMIDE**

A safe, intravenous technic for rapid radiographic visualization of the *biliary tract*. Excellent roentgenographic contrast in a high percentage of patients with . . .

Persisting post-cholecystectomy symptoms  
Impaired gallbladder function, and  
In patients with a functioning gallbladder

**For non-surgical demonstration of gallbladder and biliary duct pathology**

- rapid filling of biliary tract . . . rapid diagnoses
- well tolerated
- avoidance of variation in absorption
- assurance that the patient has received the full dose of the contrast medium
- re-examination, on the same day, of patients who have failed to visualize with an oral medium

*Cholografin is supplied in cartons containing five 20-cc. ampuls, and five 1-cc. ampuls for sensitivity testing.*

**SQUIBB**

*Literature on request.*

*'Cholografin' is a trademark of E. R. Squibb & Sons of Canada, Ltd.*

## College of Physicians and Surgeons of Manitoba

### Council Meeting (Cont.)

Winnipeg, Manitoba,  
October 16, 1954.

#### B. Treasurer's and Auditors' Reports

Your treasurer begs to submit the following report for the year 1953-54. Auditors' Report is also herewith submitted.

#### Gordon Bell Memorial Trust Account

There have been no bond changes in this account up to September 30th and there were at that date \$25,500 in 3% Dominion of Canada fully registered bonds in our strong box at the bank.

Interest earnings in this account on bonds and bank balances for the year amounted to \$774.16. As authorized by the May meeting of Council and at the request of the Gordon Bell Memorial Committee a scholarship allowance of \$100.00 per month has been paid to Dr. Fred DuVal commencing July 1954 and to continue for one year.

The balance of cash on hand in this account at September 30th was \$1066.63 and with interest to be received during the coming year a scholarship of \$100.00 per month could be undertaken next midsummer. Fixed bond endowment in this account is \$20,000, the balance of \$5,500 has been purchased from accrued interest unallotted to scholarships as it accumulated.

#### Investment Trust Account

##### Receipts

Cash balance on hand Oct. 1, 1953	\$2,795.46
Interest received on bonds and cash balances	1,939.67
	\$4,735.13

##### Disbursements

Check to Medical College Library	\$ 750.00
Check for purchase of bonds	2,000.00
Check for Extra-mural expenses	328.55
	\$3,078.55

Balance cash in this account on

September 30, 1954 \$1,656.58

As reported to the semi-annual meeting in May there were added on November 9, 1953, Province of Manitoba 4 1/4% 1968 bonds to the value of \$6,000.00 at a price of \$101.24. These bonds are now priced at \$107.00. This brought our bond holdings in this account to \$66,000.00, the other \$60,000 being Dominion of Canada 3% fully registered bonds. Of these Dominion of Canada Bonds there are \$45,000 due in 1959 which are at present listed at \$101.10 and your treasurer would advise these 3% bonds be sold and 3 1/2% bonds bought fully guaranteed by the Government of Canada or one of the provinces such as Ontario Hydro 3 1/2% due in 1979 which can be bought today at \$100.25 giving us a

profit on sale and a higher rate of interest while preserving security of investment which must be our first consideration.

#### Current Account

Credit balance on hand in this account on September 30, 1954 was \$6,723.50 as compared with \$7,606.63 one year ago. Total revenue in this account for the year amounted to \$18,540.19 and total disbursements to \$14,948.98 but of this sum \$4,074.32 was used for purchase of bonds added to the Investment Trust so that the account really gained \$3,591.21 excess of income over current expenditure.

This is a very satisfactory position but your treasurer would remind you that \$9,480 came from Registrations, many of which were not for normal Manitoba practice and that \$1,975 came from Documentation fees which again are abnormal receipts. So that if this spate of registrations in Manitoba in order to obtain registration in other Commonwealth areas should cease our favorable current account balances would vanish. There would be less office work required but this decrease would not offset the drop in income. It therefore behoves us to increase our Trust Account holdings to provide a cushion against such contingencies as war or other adverse changes. Your finance committee should consider using any surplus cash in this non-interest bearing account to purchase from time to time satisfactory safe investments transferred to Investment Trust account at the same time keeping in mind a working balance of cash on hand and the commitment by semi-annual council meeting to furnish the new Medical College auditorium up to a total of \$8,500.00.

Respectfully submitted,

T. H. Williams, M.D., C.M.

Treasurer.

PRICE, WATERHOUSE & CO.  
Bank of Toronto Building

Winnipeg, October 14, 1954.

The College of Physicians and Surgeons of Manitoba,  
Winnipeg, Manitoba.

Dear Sirs:

We have made an examination of the accounting records of The College of Physicians and Surgeons of Manitoba for the year ended September 30, 1954, including the Gordon Bell Memorial Fund. This examination included (a) verification of cash and bank balances and of investment securities as at the year end, (b) examination of signed vouchers and test of paid disbursement cheques and comparison of them with the relevant entries in the books, (c) test comparison with the cash book of duplicates of receipt forms issued, (d) test of general ledger postings and arithmetical accuracy of the accounting records and (e) inspection of the official minutes and preparation of the annual financial statements which are attached to this report.

Our comments on the financial statements and on our examination follow:

#### Investments:

We attended at the safety deposit vaults of The Bank of Toronto on October 1, 1954 and, in conjunction with your treasurer and registrar, examined Government of Canada and Province of Manitoba bonds of a par value of \$66,000 as shown under the heading of Investment Account and Government of Canada bonds of a par value of \$25,500 as shown under the heading of Gordon Bell Memorial Fund.

These bonds were registered in the name of The College of Physicians and Surgeons of Manitoba.

During the year, Province of Manitoba bonds, 4 1/4%, due 1968 of a par value of \$6,000.00, were purchased at a cost of \$6,074.34. Of this amount \$2,000.00 was disbursed from the Investment Trust Account, and the remainder from the Current Account.

**Funds on Deposit:**

The balances on deposit with The Bank of Toronto at September 30, 1954, were confirmed by certificate received by us direct from the bank.

**Receipts and Disbursements:**

Interest was accounted for from all investments and interest bearing deposits and all cash received, as evidenced by the cash record appears to have been promptly deposited in the bank.

Disbursement cheques examined were signed by two authorized signatories, viz., Dr. M. T. Macfarland and Dr. T. H. Williams. Vouchers examined for expenditures bore the approvals of the same two persons or of Dr. Macfarland and Dr. C. H. A. Walton. Grants, donations, changes in salaries, and certain other expenses were found to be in accordance with authorizations in the minutes of meetings of the Council and Executive Committee.

**Authorizations for Expenditures to be Made:**

There are listed below amounts of grants and awards

approved in the minutes of meetings on which further disbursements are to be made:

Miss Rosemary Watkins—	
Library cataloguing course	\$ 790.00
Paid during year	400.00

Balance	\$ 390.00
---------	-----------

Dr. F. DuVal—	
Gordon Bell Memorial Fund grant at rate of \$100 per month for one year from July 1, 1954	\$1,200.00
Paid during year	300.00

Balance	\$ 900.00
---------	-----------

In addition to the above, approval of an expenditure up to \$8,500.00 has been given by the Council for the furnishing of the auditorium in the new wing of the Medical College. No disbursements in this connection were made during the year to September 30, 1954.

We shall be pleased to furnish you with any additional information you may desire in regard to the attached accounts.

Yours very truly,  
Price Waterhouse & Co.

Exhibit I

**The College of Physicians and Surgeons of Manitoba Statement of Funds, September 30, 1954**

				Gordon Bell Memorial Fund
Investments:	The College of Physicians and Surgeons of Man.	Investment Account	Current Account	Total
Bonds registered in the name of The College of Physicians and Surgeons of Manitoba, carried at par—				
3% Victory loan due May 1, 1957	\$ 500.00	\$ —	\$ 500.00	\$ 1,000.00
3% Victory loan due January 1, 1959	45,000.00	—	45,000.00	—
3% Victory loan due September 1, 1966	14,500.00	—	14,500.00	24,500.00
4 1/4% Province of Manitoba due October 1, 1968	6,000.00	—	6,000.00	—
	\$66,000.00	\$ —	\$66,000.00	\$25,500.00
Uninvested Funds:				
On deposit with The Bank of Toronto	1,656.58	6,723.50	8,380.08	1,066.63
Petty cash fund	—	10.00	10.00	—
	\$67,656.58	\$ 6,733.50	\$74,390.08	\$26,566.63
<b>Total</b>				
<b>Note:</b> Approximate quoted market value of above bonds as at September 30, 1954	\$66,902.50			\$25,622.50

Exhibit II

**The College of Physicians and Surgeons of Manitoba Statement of Receipts and Disbursements For the Year Ended September 30, 1954**

				Gordon Bell Memorial Fund
Cash Receipts:	The College of Physicians and Surgeons of Man.	Investment Account	Current Account	Total
Interest on bonds	\$ 1,927.50	\$ —	\$ 1,927.50	\$ 765.00
Interest on bank deposits	12.17	—	12.17	9.16
Fees and other receipts, per Exhibit III	—	18,540.19	18,540.19	—
	\$ 1,939.67	\$18,540.19	\$20,479.86	\$ 774.16
<b>Cash Disbursements:</b>				
Purchase of Province of Manitoba 4 1/4% bonds	\$ 2,000.00	\$ 4,074.34	\$ 6,074.34	\$ —
Grant to Medical Library Committee	750.00	—	750.00	—
Grant to Rosemary Watkins	—	400.00	400.00	—
Grant to Manitoba Medical Association for extra-mural postgraduate work	328.55	—	328.55	—
Scholarship award to Dr. F. DuVal	—	14,948.98	14,948.98	300.00
General disbursements, per Exhibit IV	—	—	—	—
	\$ 3,078.55	\$19,423.32	\$22,501.87	\$ 300.00
Net disbursements (or receipts) for the year	(\$ 1,138.88)	(\$ 883.13)	( \$ 2,022.01)	\$ 474.16
<b>Add</b> —Cash in bank and on hand at commencement of year	2,795.46	7,616.63	10,412.09	592.47
Cash in bank and on hand as at September 30, 1954, per Exhibit I	\$ 1,656.58	\$ 6,733.50	\$ 8,390.08	\$ 1,066.63

## Exhibit III

The College of Physicians and Surgeons of Manitoba  
 Particulars of Receipts — Current Account  
 For the Year Ended September 30, 1954  
 (With Comparative Figures for 1953)

	1954	1953
Registration fees	\$ 9,480.00	\$ 8,325.00
Annual fees	4,430.00	3,960.00
Certificates		
M.C.C.	975.00	1,175.00
G.M.C.	35.00	35.00
Temporary licenses	300.00	270.00
Specialist registration fees	365.00	170.00
Documentation fees	1,975.00	2,150.00
Medical student registration fees	52.00	27.00
Sales of mailing lists	472.00	420.00
Sales of medical registers	8.00	—
Credentials Committee — University of Manitoba	175.00	—
Miscellaneous income	13.19	40.00
Deposits on applications pending	260.00	430.00
Refund on donation to Canadian Medical Association	—	507.10
	\$18,540.19	\$17,509.10

## Exhibit IV

The College of Physicians and Surgeons of Manitoba  
 Particulars of Disbursements — Current Account  
 For the Year Ended September 30, 1954

	1954	1953
Salaries:		
Registrar	\$ 3,700.00	\$ 3,600.00
Treasurer	600.00	500.00
Assistant to registrar	2,815.00	2,395.00
Office	2,080.00	1,660.00
Meetings:		
Annual, October 17, 1953	758.90	768.60
Special, May 19, 1954	725.90	638.30
Executive committee	218.40	92.80
Special Committees	292.20	270.00
Luncheons, annual and special meetings	39.00	9.00
Janitor service, annual and special meetings	5.00	10.00
Documentation fee paid to University of Manitoba	155.00	95.00
Manitoba Medical Association for office rental and secretarial services, etc.	960.00	960.00
Stationery and office supplies	214.87	281.71
Printing	617.97	459.92
Postage	306.00	220.00
Insurance premiums	20.00	20.00
Audit fees	175.00	175.00
Legal fees	560.00	1,515.00
General expenses	91.00	13.25
Miscellaneous office expense	106.51	146.50
Bank exchange	11.33	12.29
Expenses of registrar — meeting in Vancouver	231.90	—
Deposits refunded on unaccepted applications	230.00	190.00
Manitoba Medical Association — expense of Workmen's Compensation Board fee taxing committee	35.00	90.00
Donation to Canadian Medical Assn. (See refund \$507.10 in receipts section)	—	1,000.00
Registration fees refunded	—	131.94
	\$14,948.98	\$15,254.31

**Motion:** "THAT the Treasurer's and Auditors' Report be adopted." Carried.

A communication from Price Waterhouse & Co. was also presented in which they stated that the fidelity bond coverage is \$2,000 on the treasurer and \$1,000 each on the registrar, assistant to the registrar and the secretary. They suggested that Council review the adequacy of bond coverage particularly in view of the substantial amount of collections and securities handled by those connected with College affairs. They also suggested that the term "secretary" used be changed to office secretary or stenographer.

**Motion:** "THAT the fidelity bond coverage be increased to \$5,000 on the Treasurer, \$5,000 on the Registrar, \$2,000 on the Assistant to the Registrar, and \$2,000 on the Stenographer." Carried.

**4. Reports of Standing Committees and their consideration.**

**A. Executive Committee.**

The Chairman advised that since the May meeting of Council there had been one meeting of the Executive Committee held on September 7th, and mimeographed copies of the minutes had been distributed to each member of Council.

**Motion:** "THAT the minutes of the Executive Committee meeting held September 7th, 1954 be accepted as having been read." Carried.

**Business Arising from Minutes of Executive Committee Meeting held September 7th, 1954.**

**(a) Specialist Registration:**

The Specialist Committee disbanded January 1, 1954, and up to September there had been a total of 11 applications for specialist registration. Leaving consideration of these applications for a meeting of the Executive Committee, to be approved by Council, entails delay before the application may be finalized. It was considered by the Executive Committee that an Advisory Committee, patterned after the original Specialist Committee, be set up to advise Council on applications for specialist registration, but Council agreed it would be more advisable for the Committee to report to the Registrar so that the registration could be effective immediately, rather than wait for the Council meetings.

**Motion:** "THAT a Specialist Committee be set up consisting of two members of the Manitoba Medical Association, two members of the Faculty of Medicine, University of Manitoba, and two members of the College of Physicians and Surgeons of Manitoba, the Chairman to be a member of the C. P. & S." Carried.

Six registrants were approved for specialist registration by the Executive Committee.

**Motion:** THAT the action of the Executive Committee in approving the above applications for specialist registration be confirmed." Carried.

Four applications for specialist registration were deferred.

Three new applications have been received.

**Motion:** "THAT the above applications for specialist registration be referred to the new Specialist Committee." Carried.

**(b) Registrars' Meeting, Vancouver, June 16, 1954.**

The Chairman reported that the minutes of the Registrars' Meeting had been incorporated into the Executive Committee minutes, and pointed out that the Registrar had been nominated to represent the Registrars of the various licensing bodies across Canada on the Defence Medical and Dental Services Advisory Board.

**Motion:** "THAT the College of Physicians and Surgeons of Manitoba approve the nomination of the Registrar to represent the registrars of the various licensing bodies across Canada on the Defence Medical and Dental Services Advisory Board." Carried.

**(c) Grant to Medical Library Committee**

**Re Training of Cataloguer.**

**Motion:** "THAT this Council approves of the action of the Executive Committee in granting Seven Hundred and Ninety Dollars (\$790.00) to the Medical Library Committee for the purpose of assisting the training of a cataloguer for the Library in current academic session at the Toronto Library School." Carried.

**B. Registration Committee.**

1. The Registration Committee has met on eleven occasions since the last Annual Meeting, four of the meetings being held this summer.

2. The Committee continues to receive a large number of applications for Enabling Certificates from foreign doctors. Twenty-three certificates were granted during the year and twenty-two were deferred, four being considered on two separate occasions. All candidates are interviewed and sometimes this can only be done when the candidate appears for examination. The University Committee on credentials and basic sciences continues to give invaluable assistance in evaluating the documents of foreign applicants and in arranging for basic science examinations.

3. Fifty-five certificates of Registration were granted and six were deferred. Certificates of Licence (temporary) were granted to twenty-three applicants and one was deferred.

4. An undergraduate student taking his studies in Ontario was refused student registration and advised to seek it in Ontario.

5. The Command Medical Officer, Colonel C. G. Wood, has been very helpful in assisting with the registration of the officers under his command and a new regulation that they should pay Ten Dollars (\$10.00) for Certificates of Licence, in addition to their Five Dollars (\$5.00) annual fee, is being honored.

6. The new application forms authorized at the last meeting of the Council have come into use and are proving to be very valuable.

7. It is anticipated that the Committee will continue to have numerous applications as before.

All of which is respectfully submitted.

C. H. A. Walton, M.D.,

Chairman, Registration Committee.

October 16, 1954.

**Motion:** "THAT the report of the Registration Committee be adopted." Carried.

**C. Education Committee.**

The Chairman advised there had been no meetings of the Education Committee held during the year.

**Motion:** "THAT the report of the Education Committee be adopted." Carried.

**D. Finance Committee.**

A meeting of the Finance Committee was held on October 15, 1954, at which various matters were discussed.

(1) The treasurer reported that Dominion of Canada 3% 1957 bonds to a total of \$1,500 were called on October 1st and accordingly cashed in at \$101.25 and deposited \$1,012.60 to the Gordon Bell Memorial Trust Account and \$506.30 to the Investment Trust Account.

After discussion and following advice obtained from brokers, it was moved, seconded and carried, "THAT the \$1,500 in bonds be replaced in the appropriate accounts by the purchase of Government of Canada 3 1/4% 1979 bonds which can be presently bought at \$100.50."

(2) The Treasurer pointed out that the Investment Trust Account holds \$45,000 of Dominion of Canada 3% 1959 bonds which will probably be called in 2 years and which are presently listed at \$101.10 and that these can at present be sold and the proceeds will buy an equal amount of government guaranteed bonds of different issues, Hydro bonds, Provincial bonds, etc. paying higher interest rate. After discussion it was moved, seconded and carried, "THAT Council authorize the Finance Committee after consultation with their brokers to instruct that these bonds be disposed of and the proceeds re-invested in government guaranteed bonds as seems wise and when opportunity arises."

(3) It was further moved, seconded and carried, "THAT the Finance Committee with the advice of their brokers be authorized to instruct that investment in guaranteed securities be made from balances on hand in Current and other accounts up to \$5,000 and that no cash in excess of current requirements be left in these accounts."

(4) It was moved, seconded and carried, "THAT a salary increase of \$10.00 per month be given Mrs. J. Danks and Miss L. Zawadski, as from October 1, 1954 and that a similar Christmas bonus as last year be paid."

(5) The pay for attendance at meetings of committees was discussed and it was generally agreed that these should be raised since many of the meetings are prolonged. It was moved, seconded and carried, "THAT the fee for attendance at meetings other than Annual and Semi-annual Council meetings be \$10.00 per meeting to members and luncheon paid for if required." Also "THAT mileage allowance for Extra-Mural meetings be at the same rate as for Council meetings 10 cents per mile each way."

(6) It was moved, seconded and agreed, "THAT the Treasurer be authorized to pay up to \$5.00 per meeting to the janitor who assists at our annual

and semi-annual meetings."

Respectfully Submitted,

T. H. Williams, M.D., C.M.

Chairman, Finance Committee.

**Motion:** "THAT the report of the Finance Committee be adopted." Carried.

**Motion:** "THAT One Thousand Dollars (\$1000.00) from the Gordon Bell Memorial Account and Five Hundred Dollars (\$500.00) from the Investment Trust Account, be invested in Government of Canada 3 1/4 % 1979 bonds." Carried.

**Motion:** "THAT Council authorize the Finance Committee, after consultation with their brokers, to dispose of Forty-five Thousand Dollars (\$45,000.00) of Dominion of Canada 3% 1959 bonds in the Investment Trust Account, and reinvest in securities and investments as stipulated in the Medical Act, as seems wise and when opportunity arises." Carried.

**Motion:** "THAT Council authorize the Finance Committee, after consultation with their brokers, to invest in securities and investments as stipulated in the Medical Act, from balances on hand in Current and other accounts up to Five Thousand Dollars (\$5,000.00), and that no cash in excess of current requirements be left in these accounts." Carried.

**Motion:** "THAT Council approves the recommendation of the Finance Committee with respect of the increase in salaries of Mrs. J. Danks and Miss L. Zawadzki of Ten Dollars (\$10.00) each, retroactive to October 1, 1954, and that a Christmas bonus of Forty Dollars (\$40.00) to Mrs. Danks and Twenty-five Dollars (\$25.00) to Miss Zawadzki be authorized." Carried.

**Notice of Motion:** "THAT Part VII Section 4, of the By-Laws, Rules and Regulations be amended by deleting \$5.00 from the third line and replacing it by \$10.00."

**Motion:** "THAT the Treasurer be authorized to pay up to Five Dollars (\$5.00) per meeting to the janitor who assists at our annual and semi-annual meetings." Carried.

**Motion:** "THAT the Council expresses a vote of thanks to the Manitoba Medical Service Board for the use of the Board Room for this meeting." Carried.

#### E. Legislative Committee

The Registrar advised no meeting of the Legislative Committee had been held during the year.

#### F. Representative to Library Committee

Your representative has attended two meetings of the committee since the last report in May. Matters of staff, library hours and purchase of books and periodicals were taken up. It was decided to again have the library available for 2 hours each evening for the benefit of practitioners.

The use of the library by physicians has steadily increased during the last year though the rural

practitioners do not use its facilities as much as they might. The provision of photostat copies of articles at a very reasonable rate has been taken advantage of and the R.C.A.F. thanked through Dr. Mathewson for permission to use their machine for this purpose.

Books in the library have been increased by 796 volumes, to a total of 18,980. Periodicals subscribed to have been increased by 17 to a total of 371 periodicals available. Of these books bought 25.6% were purchased from the C.P. & S. annual grant of \$750.00.

The usual annual grant of \$750.00 has been requested for the coming year.

You will notice a bronze plaque has been placed in the library acknowledging the C.P. & S. help in support.

This year by approval of your Executive Committee the C.P. & S. undertook to help in the expense of training of a cataloguer in order to fill a long standing need in the library. At the request of the library a cheque was issued to Miss Rosemary Watkins amounting to \$400.00 and a similar cheque of \$390.00 will be required during the winter. It is necessary to go to Toronto University to obtain this special training course. The library committee and Miss Watkins are most grateful for this help and Miss Watkins has undertaken to serve the library in the capacity of a cataloguer for a period of years after the year's course of training.

Gifts to the library continue to be received from interested individuals and the volume of its usefulness is increasing.

I append a statement and library statistics received from Miss Ruth D. Monk, Librarian, and also a letter of thanks from Miss Rosemary Watkins.

Respectfully submitted,

T. H. Williams, M.D., C.M.,

Representative on Library Committee.

#### Statistics

1953-54

1953-54	1952-53	Progress
19,776 volumes	18,980 volumes	796 volumes or 4.19% increase over 1952-53 (Includes unbound periodical volumes)

#### 2. SERIALS (Periodicals): Titles currently received:

	1953-54	1952-53	Progress
Titles	384	371	An increase of 17 serials or 3.50% over the session 1952-53.
Duplicates	10	5	Of these 4.78% are new or duplicate titles.
	394	376	

Volumes added to the Library by  
THE COLLEGE OF PHYSICIANS AND SURGEONS'  
Grant: 100 volumes.

This is a decrease of 35 volumes from last year's  
purchases on this grant.

These 100 volumes comprise 25.64% of all purchases  
in 1953-54, and 15.77% of total accessions.

#### Explanation of Decrease of Volumes

##### Added by Grant, from 1952-53.

The count of purchases received is taken at the  
end of the Academic year and outstanding orders  
are not included. There were a number outstanding  
otherwise the year would have shown an increase.

This last year the Library Committee had an  
extra \$1,000.00 available in the University Fund.  
This was made possible as no full-time cataloguer  
was available, and the balance of the unexpended  
salary was transferred for purchasing books. The  
largest number of volumes were during 1953-54  
over any other previous period.

#### Services Other Than Loans

##### A. References:

Reference Requests Made By:	Number	% of Total Requests of all Users of Library
Winnipeg Physicians	115	48.55%
Rural Manitoba Physicians	18	5.79%

During the year the doctors, including faculty  
were advised of references to current journals on  
subjects of special interest to them. There were  
49 persons so advised of 128 articles.

##### B. Photostatic Services

Arrangements were made in the spring of 1954  
to begin a photostatic service, making only a small  
charge. This was made possible through the cour-  
tesy of Dr. F. A. L. Mathewson, in charge of the  
R.C.A.F. Research Laboratory in the Medical Bu-  
ildings, who placed their Photostat machine at the  
Library's disposal one day a week. The service  
commenced April 1954.

#### Circulation Statistics — Borrowers and Loans — 1953-54

Class of Borrower	BORROWERS			LOANS			
	Total Possible Borrowers	Actual Borrowers	% of Possible Borrowers	Increase or Decrease in Borrowers from 1952-53	Total Items Loaned (Bks. & Jls.)	Increase or Decrease from 1952-53	% Change from 1952-53
1. Registered Physicians (Winnipeg & Suburbs)							
a. Faculty	177	123 of 619 or	19.87%	Inc. 18			
b. Non-faculty	442	159 of 619 or	25.69%	Inc. 5			
	<hr/> 619	<hr/> 282	<hr/> 45.56%		5,477	Increase of 1,322	31.82%
	Increase in number of actual borrowers since 1952-53 — 23 or 8.88%.						
	Total number of items loaned to Winnipeg physicians — 5,477 items or 50.8% of ALL loans in 1953-54.						
2. Registered Rural Physicians	254	34	13.39%	Dec. 9	198	Decrease of 64	24.42%
<b>TOTAL</b>							
Registered Manitoba Physicians	873	316	(a) 36.19%	Inc. 14	5,675	(b) Increase of 1,258	28.48%

- (a) An increase of 14 in actual numbers of registered physicians or 30.43% using the Library.  
The number of registered physicians in the province has increased by 46 or 5.56% over 1952-53.
- (b) Registered Manitoba physicians, including licensed physicians on faculty, borrowed 5,675 items  
of the total of 10,767, or 52.70% of all loans in 1953-54.

September 28, 1954.

**Motion:** "THAT the report of the representative to the Library Committee be adopted." Carried.

#### Re Grant to Medical Library Committee:

A communication was read from the Chairman,  
Medical Library Committee, requesting the usual  
grant.

**Motion:** "THAT the College of Physicians and  
Surgeons of Manitoba grant to the Medical Library  
Committee, the sum of Seven Hundred and Fifty  
Dollars (\$750.00) for the year 1954-55, to be paid  
from the Investment Trust Account." Carried.

#### G. Taxing Committee.

The chairman advised there had been  
meetings of the Taxing Committee held since  
May meeting of Council.

**Motion:** "THAT the report of the Tax  
Committee be adopted." Carried.

#### H. Discipline Committee.

The Chairman advised there had been  
meetings of the Discipline Committee since  
May meeting of Council.

Motion: "THAT the report of the Discipline Committee be adopted." Carried.

**5. Reports of Special Committees and their consideration.**

**A. Representative to the Manitoba Medical Association Executive.**

Dr. Ed. Johnson reported that he and Dr. C. B. Stewart had attended most of the meetings of the Executive of the Manitoba Medical Association, but there was nothing special to report of interest to the College.

Motion: "THAT the report of the representatives to the Manitoba Medical Association Executive be adopted." Carried.

**Request for Grant for Extra Mural**

**Postgraduate Work.**

A communication was read from the Manitoba Medical Association, requesting the usual grant for extra mural postgraduate work.

Motion: "THAT the College of Physicians and Surgeons of Manitoba grant to the Manitoba Medical Association, a sum up to Five Hundred Dollars (\$500.00) for the season 1954-55, for extra mural postgraduate work, to be paid from the Investment Trust Account." Carried.

Referring to the report of the Finance Committee, it was pointed out that reimbursement for mileage at the rate of Ten Cents (10c) per mile both ways would be in accordance with mileage allowance to Council members.

**Request for Grant for Fee Assessment Committee, Workmen's Compensation Board.**

A communication was read from the Manitoba Medical Association, requesting the usual grant for payment of the Fee Assessment Committee, Workmen's Compensation Board.

Motion: "THAT the College of Physicians and Surgeons of Manitoba grant to the Manitoba Medical Association, for payment of the Fee Assessment Committee, Workmen's Compensation Board, for the season 1954-55, a sum at the same rate as members of the Council are paid for attending standing committee meetings." Carried.

**B. Trustees of the Gordon Bell Memorial Fund.**

The Registrar advised he had communicated with the Senior Trustee of the fund and there was no report.

Motion: "THAT the report of the Trustees of the Gordon Bell Memorial Fund be adopted." Carried.

**C. Representatives to the Committee of Fifteen.**  
The Registrar advised there was no report.

**D. Representative to the Committee of Selection in Medicine.**

The committee for selection of students to enter the course of study in Medicine met on June 25th in the Senate Room under chairmanship of Dean W. Waines. The absence of President Gillson owing to illness was regretted.

*DOCTOR, rest quietly . . .*

Prescribe

**SECO-TRAZOL**

(barbiturate compound)

Does away with:

- Accidental intoxication
- Dreaded habituation
- Suicide
- Hang-over

**Insures Beneficial and Restful Sleep**

**COMPOSITION:**

Sodium Secobarbital N.N.R. 100 mg. (1½ grs.)  
Pentylenetetrazol U.S.P. 300 mg.

**also**

Sodium Secobarbital N.N.R. 50 mg. (3/4 gr.)  
Pentylenetetrazol U.S.P. 150 mg.

**DOSAGE:**

Average dose: one capsule  
Sample and literature available

**ANGLO-FRENCH DRUG CO. LTD.  
MONTREAL, QUE.**

# Your Eyes

**Part of your body —**

**Part of your health !**

- Your eyes are a part of your body; actually an external part of the brain.
- Thus, care of your eyes is part of care of your health that you wisely trust to a medical man; an M.D.
- A medical eye examiner (Eye Physician, M.D.) can tell whether you really need glasses, or treatment for some health condition that is affecting your eyes.

**Trust the care of your eyes to an Eye Physician (M.D.) Bring the prescription to the optician he trusts, the Guild Optician !**

**RAMSAY-MATTHEWS LIMITED  
OPHTHALMIC DISPENSERS**

**103 Medical Arts Building, Winnipeg**

**Telephone 92-3523**

There were eleven students to repeat the first year of medicine owing to failure in the spring exams and this high rate of failures is causing concern. The average marks obtained in first year Medicine are almost always lower than the average marks of the University grade years obtained before entering medicine. Since the pass mark requirement in Medicine is 60% compared to 50% in other faculties, it is inadvisable to accept students of low pre-med. average marks in hope they will improve. Of the eleven failures in 1954 first year medicine, none had as low as 64% pre-med. average and of the 9 honors students in 1954 first year class 2 bettered their pre-med. average while 7 were lower than their pre-med. averages.

It was required that to fill the yearly quota of 72 entering medicine there had to be 61 first choices in addition to the 11 repeaters; and in addition half a dozen alternates. Alternates have to be provided to replace any first choices who drop out because of circumstances or who fail to clear off conditioned subjects since some first choices are accepted conditional to clearing a deficient subject before fall classes begin. In order to obtain the required number of students it was necessary to accept students with a pre-med. average as low as 60% and alternate students as low as 59%. This is regretted but the number of applicants to enter medicine is steadily shrinking not only in Manitoba but in North America generally having fallen 50% in the last 7 years.

Academic averages are not the sole determining factor in the acceptance of students and where any question of acceptance occurs, factors of age, personality, citizenship, etc. are considered, race and creed have no bearing. The opinion of the dean under whom preparatory study was taken is requested.

The day of the oversupply of suitable applicants has passed, at least for the time being.

Respectfully submitted,  
T. H. Williams, M.D., C.M.,  
Representative on Committee for  
Selection of Students in Medicine.

**Motion:** "THAT the report of the Representative to the Committee of Selection in Medicine be adopted." Carried.

A question was raised concerning the effect of the third pre-medical year, and the suggestion was made that this might be studied by the Education Committee.

#### E. Representatives to the Medical Council of Canada.

Dr. C. E. Corrigan reported there had been a great deal of difficulty in the Medical Council of Canada concerning the enforcement of one year of internship before the M.C.C. would grant the li-

entiate. Ontario was opposed to the motion and threatened legal action. It is now unanimously decided that the M.C.C. will require one year of internship before the L.M.C.C. will be granted. Another suggestion was to attempt to facilitate the granting of the L.M.C.C. without examination to graduates of Canadian schools. It was decided to explore the possibility of giving the L.M.C.C. to Canadian graduates without examination.

Dr. C. H. A. Walton reported that Dr. J. Fenton Argue had retired and his successor was Lt.-Col. H. M. Stephen, who retired on October 1st from the R.C.A.M.C. The Committee on Qualification discussed the matter of examinations, and the committee recommended that the examination in Pathology be dropped since Pathology occupied a large part of the papers written in the various subjects and would not be necessary as a separate paper. It was also suggested that if Pathology was dropped from the L.M.C.C. examinations, the various provinces would incorporate the subject into the basic sciences. The M.C.C. could not act on this proposal without the necessary notice of motion, changes of the regulations, and action of the Governor-General-in-Council, which would probably take two to three years to become effective. It was also suggested that the M.C.C. would probably welcome the opinion of each provincial licensing board and that the matter might be referred to the Education Committee which would report to Council in May which would be well in advance of the next annual meeting of the M.C.C. The representatives should have some guidance from the Council on such an important matter.

**Motion:** "THAT the report of the Representative to the Medical Council of Canada be adopted." Carried.

#### F. Representative to the University Senate.

1. No problems of special interest to the College were dealt with by the Senate since my last report.

2. As the members of the Council will know, Dr. Hugh Saunderson, a graduate of the University of Manitoba, has been appointed President and Vice Chancellor of the University. Dr. Saunderson has always been most helpful and sympathetic in considering medical problems and it is anticipated that our relations with the University under his Presidency will continue to be happy.

All of which is respectfully submitted.

C. H. A. Walton, M.D.,  
Chairman,  
Representative of the Senate

October 16, 1954.

**Motion:** "THAT the report of the Representative to the University Senate be adopted." Carried.

## Manitoba Medical Service

### Report to Annual Meeting of M.M.A. 13 October 1954

By Dr. P. H. T. Thorikson, Chairman of M.M.S.

The M.M.S. is celebrating its tenth year. This organization represents a positive and constructive step taken by the Manitoba Medical Association in 1944 into the field of practical medical economics. Dr. H. D. Kitchen was the President of the M.M.A. at that time. He appointed Dr. M. R. MacCharles as first chairman of the committee. The first Board, whose members were: Dr. M. R. MacCharles, John B. Richardson, Dr. H. D. Kitchen, Robert McKay, Dr. Ross Mitchell, Frederick W. Ross, Dr. J. S. McInnes, Milton D. Grant, Dr. Claude McRae, Gerald F. Pearson, Dr. Hugh Cameron, Donald H. Murdock, Dr. Brian Best, Donovan Swailes, Dr. Clifford Abbott, appointed Dr. E. S. Moorhead as its first Executive Director because of the pioneering work that he had done during the Depression years of the early 30's.

One can readily imagine the long hours spent in discussion and indecision before a final draft of agreement was completed. No matter what our personal opinions were then or are now regarding the soundness of some of the decisions taken during the formative period, we must in all fairness acknowledge and record our appreciation for their devotion to duty, their sacrifice of time and the contributions they did make in launching this new venture. However, every progressive and successful organization must critically assess the decisions of the past in the light of subsequent experience. To improve our effectiveness and efficiency we must make necessary changes in policy and procedure.

The fundamental fact still holds, that the M.M.S. was organized for the purpose of collecting, at stated intervals over the year, a sufficient premium from prospective patients to compensate physicians and surgeons for their professional services. By this token, active membership is restricted to members of our profession engaged in active private practice. It is in no way another general medical association to which all registered physicians and surgeons can belong or take part in its active management. As the medical members of the Board are all elected by the M.M.A. it behooves the parent body to select representatives who are in active practice and who can speak for this section of the profession. Notwithstanding what I have just said, special circumstances demand special consideration. There are members of our profession who are not engaged in active competitive practice and yet whose judgment and contribution we value highly. We

should be able to include them in our committees by special arrangement. The re-classification of physicians here suggested brings us to another topic — group life insurance for doctors.

While M.M.S. must always have for its principal purpose the arrangement and payment of medical services on behalf of subscribers, there are subsidiary objects in its constitution and these can properly be used. It is proposed, for example, to use M.M.S. as an instrument through which group welfare can be secured for physicians — all physicians if possible. Group welfare includes such elements as retirement pensions, group life coverage, disability insurance and so on. A Physicians' Retirement Pension Programme has been under study by our medical economists, and when income tax legislation is favourable, we shall probably be in a good position to implement this programme. There is, however, one phase of the social security programme which has been established as from 1 October 1954 — group life insurance.

Doctors in the class of full and active members are eligible for this coverage. On behalf of associate or non-contributing members, we are requesting group coverage and hope to use M.M.S. as the instrument through which these physicians will also acquire group life protection.

Under group life coverage there is now an enrollment of 75% of eligible physicians under 65 years — a response that must gratify those responsible for the pioneering and negotiating of this contract. They well deserve our thanks.

Now that the M.M.S. has come of age and has on its Board members who have devoted much time and thought over the years to its special problems and also have an experienced and well-trained staff, the time has arrived to reconsider the working relationships between the M.M.A. and the M.M.S.

At the present time all matters of policy are referred to the parent organization before action can be taken by the Board of Trustees of the M.M.S. In effect, this means that a body, largely selected by the membership of the M.M.A., can spend weeks and months in arriving at a decision on policy and procedure and then must refer it to the Executive of the M.M.A. for approval or disapproval. If the members of the Executive of the M.M.A. are to give the matter full consideration then it must have time, possibly to refer it to one of its sub-committees before it can come to a decision. If the original decision is upheld then two large bodies of busy medical practitioners have spent much time arriving at the same conclusion. Or again, should the parent body reject the recommendation of the Board of

Trustees of the M.M.S. it then, in effect, represents a vote of lack of confidence in the members elected by your association. What is more important it retards the introduction of necessary changes. This deliberate slowing up of the machinery can cause serious discouragement and a sense of frustration to a group of men working hard to promote the welfare and success of the M.M.S. There is little reason to expect that one body of doctors sitting around a conference table is likely to arrive at a wiser decision than the first group of doctors sitting around the same table in the M.M.S. Board Room. To me, this arrangement wastes the time of two groups of busy doctors who are already giving a great deal to the affairs of organized medicine. The interests of the M.M.A. are adequately safeguarded by the fact that the Board of the M.M.S. are nominated by the Executive Committee of the M.M.A. and elected by our membership and that these representatives are being constantly changed. No small faction or group can assume control. It can be protected still further by an arrangement originally suggested by Dr. Walter Tisdale, that the President, Vice-President and Chairman of the Economics Committee and the Secretary be ex-officio members of the M.M.S. Board. I hope that my remarks are not interpreted as inferring that there should be any change in the present liaison between the two bodies. We must, however, clear the lines of responsibility in the interest of efficiency in the operation of a subsidiary organization which has become a most complicated and time-consuming affair. It is an axiom in good organization that an individual or a group who is given a major responsibility must, at the same time, be given authority commensurate with that responsibility. Otherwise a lack of confidence is implied. The present arrangement virtually states to the Board of Trustees of the M.M.S.: "Now get on with the affairs of the M.M.S., do a good job, but make no important decisions or changes without letting us (the Executive of the M.M.A.) pass on them first." This I suggest is not in the best interests of either organization.

Another working relationship with M.M.A. is evident in decisions on fees. The problem of a deficit is always before us at the M.M.S. Many causes for this deficit can be indicated. It has even been suggested in some quarters that our Fee Tariff is too high and ought to be reviewed. Certainly it ought to be reviewed but not for this reason. It is important to restate here the introduction to Section G of the M.M.S. Manual for Physicians. The M.M.S. Fee Tariff is compiled by the M.M.S. Administration from M.M.A. rulings adopted by the Board of Trustees of M.M.S., and alterations in the fee structure can only be decided by M.M.A., for subsequent ratification by the Board of M.M.S. This is probably as it should be.

There are some other problems about which I should like to make a few brief remarks. Let me refer swiftly to the problem of multiple contracts. One month ago, one of our senior officers of the M.M.A. performed a major operation for which he received \$112.50 after pro-rating the account. His patient received a receipt for \$150.00 for income tax purposes and a bonus of \$250.00 for the operation on a policy which he held with an insurance carrier. Is there any justice or common sense in an agreement that allows people who can afford multiple contracts to capitalize on their investments at the expense of a doctor who originally entered this scheme on the assurance that this plan was being arranged specifically for the man in modest or moderate circumstances? If we continue to condone this practice we are not keeping faith with the men and women whom we originally persuaded to sign our medical contracts.

Again this country has seen the greatest financial boom of its history. Everything has gone up in price except many of our medical and surgical fees. The profession was assured again at the outset, that our plan was to assist the man of modest or moderate means to budget for his medical and surgical care. In spite of the fact that we can not afford to carry on Plan B which is all-embracing, at the present premium, we allow our well-to-do citizens—in fact, they have been encouraged by us—to avail themselves of this outstanding bargain at the expense of our medical members on the somewhat doubtful pretext that we needed their support in order that we may have the opportunity to canvass their employees. Or the other excuse, that we need the vote of these influential citizens to stave off state medicine. Have we sunk so low in our own estimation that we have to buy votes with medical dollars from some people who may have accumulated more wealth than social conscience? For your information, I would draw attention to the following resolution adopted by the board of Trustees of M.M.S. on 22nd September 1954, "That M.M.S. deplores the admission of high income applicants for M.M.S. coverage and hopes for the concurrent of M.M.A. in an educational approach to such applicants to dissuade them from seeking coverage. There are many methods of doing this but all contain this thought, "that the benefits of the doctor-subsidized plan are intended only for those of low or moderate income. People with incomes of \$10,000 or more do not need this subsidy and should not apply for coverage."

The third subject that I would like to bring to your attention is the matter of experience rating and employer contribution. There are some groups who receive services much in excess of the amount they pay. Some years ago the M.M.S. in a burst of great generosity accepted the lawyers and the dentists into the M.M.S. We may need their votes

to ward off state medicine but I don't think we should pay too high a price for them. It is true that their staffs are also included in our contracts but why should the medical profession subsidize the staffs of these other professions? If they need a subsidy to obtain complete medical care that subsidy should come as an employer contribution. Furthermore, should our experience rating show that they and other groups are receiving a disproportionate share of our services in relation to groups who are paying the same premium, then the group receiving the greater service should contribute a higher premium and not the groups who are now almost paying their way. This, I suggest, is a fair proposition for it protects the equity of all the subscribers by avoiding the necessity for steady and repeated increase in everyone's premium irrespective of the experience rating on the various groups. It is not possible nor desirable, to attempt to control utilization by restrictive measures applied over the entire M.M.S. population, but it is fair and practical to inform and try to educate our subscribers, group by group, that their premiums will be affected by overutilization. I hope that this suggestion could meet with the approval of

your executive Committee so that the Board of Trustees of M.M.S. may set in motion that slow process of correcting evils that have crept into our particular plan.

Many problems as you see confront the members of the Board and staff of the M.M.S. I have mentioned only some of the problems that demand your thoughtful and immediate consideration. Our purpose is two-fold — to protect the interest of the doctor and at all times take into account the interest and the needs of our patients. These are inseparable. In fact we do, to an unusual degree I believe, in this day and generation, practice the precepts laid down in our oath of Aesculapius 2,000 years ago which included the one that the welfare of our patients be always uppermost in our minds.

Let me take this opportunity to express on your behalf as well as my own, a word of appreciation to the members of the Board of Trustees, the Executive Committee and to Dr. MacMaster and his staff for their contribution towards the development and improvement of the services rendered to the public and to the profession by the M.M.S.

## Obituary

### Dr. Solomon Kobrinsky

The congregation which filled Shaarey Zadek synagogue on January 30 for the funeral of Dr. Kobrinsky was an evidence of the esteem in which he was held, and the moving address of Rabbi Berkal who spoke from personal experience brought home the widespread influence that a good physician can exert.

In the prime of his powers he was struck down by disease, but though sadly crippled he refused to give up and for several years carried out professional duties until the final call came.

In the comparatively short span of his life he achieved much. Born at Odessa in the Crimea in 1895 he came to Canada as a young boy. He was educated at Norquay and St. John's Technical schools, winning an Isbister scholarship in 1913. Four years later he graduated from Manitoba Medical College in a class which included Fred Mc-

Guinness, Walter Tisdale, Morley Lougheed, Alex Pincock and Joe Pritchard.

After two years practice at Macgregor he returned to Winnipeg where he soon became especially interested in obstetrics and gynecology. He was on the teaching staff of St. Boniface and Grace hospital and was Demonstrator and Lecturer in Obstetrics of the faculty of Medicine. In addition he was a Council member of the College of Physicians of Manitoba and of the Canadian Medical Association. He wrote several articles for the Manitoba Medical Review and was for a year president of the Obstetrical and Gynecological Section of the Winnipeg Medical Society. In 1951 that Society bestowed Life Membership on him.

He founded the Kobrinsky Clinic and in a larger sense he was head of the Kobrinsky family, remote and near.

If it can be said of any man that he had many friends and no enemies, it might be said of Sol Kobrinsky.

*"She was often depressed, dissatisfied and unhappy . . .*

**DEXAMYL**<sup>\*</sup> has been of remarkable value for this patient . . .



*(This unposed photograph was taken during the patient's interview with her physician. The statement in quotes is from his case report.)*

# 'DEXAMYL' Tablets • Spansule® Capsules

Each 'Dexamyl' Tablet contains:

Dexedrine\* (dextro-amphetamine sulfate, S.K.F.) . . 5 mg

*also available:* 'Dexamyl Spansule' (No. 1) Capsules, containing the equivalent of *two* tablets  
'Dexamyl Spansule' (No. 2) Capsules, containing the equivalent of *three* tablets

SMITH KLINE & FRENCH • Montreal 9

## Symposium

### on Modern Trends in Treatment

On Monday, April 4th, at the Royal Alexandra Hotel, the Manitoba Medical Association and the Committee for Post Graduate Studies, Faculty of Medicine, University of Manitoba, together with Lederle Laboratories are sponsoring a symposium on current trends in treatment as outlined below.

All physicians and their wives are welcome to attend this meeting. There will be no registration fee, and at noon physicians and their wives will be guests at luncheon. A tea at 4 p.m. is being arranged for the ladies, and at 5:30 p.m., there will be a reception for speakers, special guests, physicians and their wives.

#### Program

##### Problems in the Management of Juvenile Diabetes

Dr. A. L. Chute

Professor of Pediatrics, University of Toronto

##### Modern Treatment of Hypertension

Dr. Kenneth Evelyn

Research Professor, Department of Medicine  
University of British Columbia

##### Chemotherapy of Malignant Disease

Dr. O. H. Pearson

Sloan Kettering Institute for Cancer Research  
New York City

##### Recent Advances in Cardiac Surgery

Dr. Charles B. Ripstein

Professor of Surgery

Albert Einstein College of Medicine  
Yeshiva University, New York City

##### Recent Advances in the Treatment of Allergic Disorders

Dr. Bram Rose

Associate Professor, Department of Medicine  
McGill University

##### Indications for Hysterectomy

Dr. R. W. TeLinde

Professor of Obstetrics and Gynecology  
Johns Hopkins Hospital, Baltimore, Maryland

# LACTOGEN

a powdered all-milk  
formula closely approximating  
breast milk

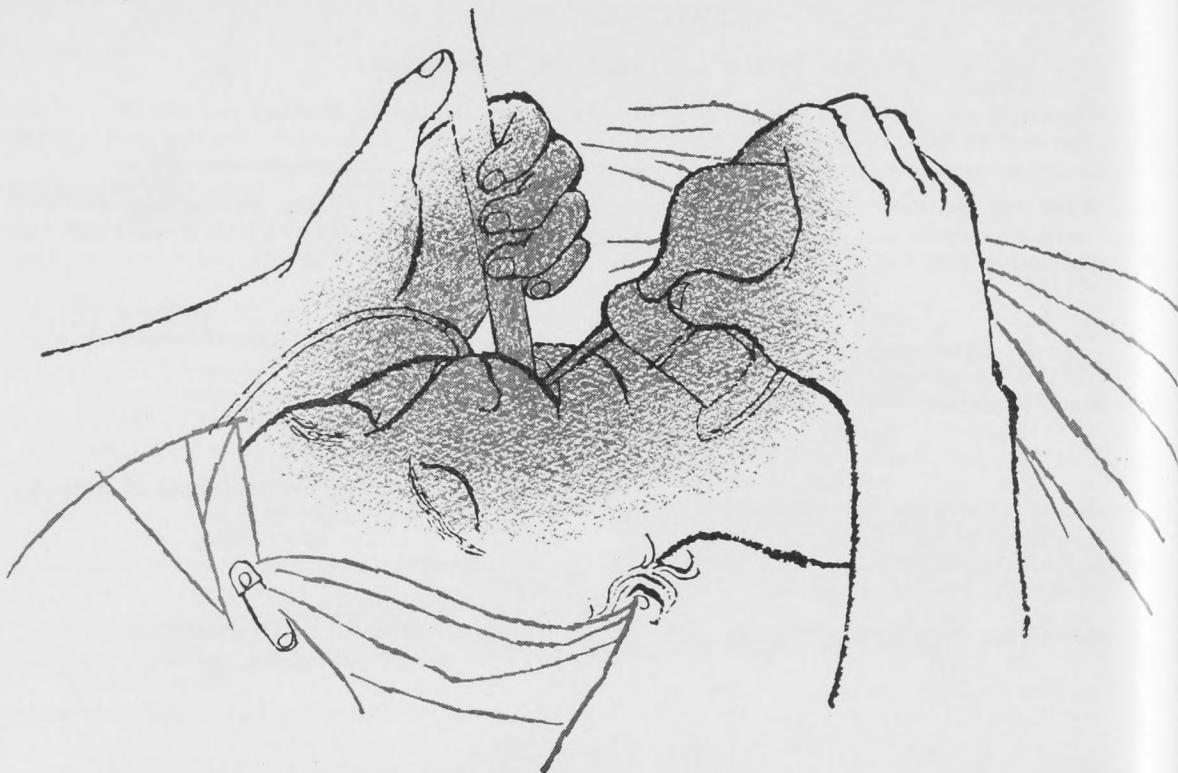
Lactogen is a natural all-milk formula consisting of whole cow's milk modified with milk fat and milk sugar. It contains no milk substitutes.

Closely approximating the composition of breast milk in other factors, Lactogen, however, provides a one-third more liberal allowance of protein.

Lactogen is prepared simply by stirring into warm, previously boiled water. It is made up with equal ease, either for a single feeding or for an entire day's use.

NESTLÉ (CANADA) LTD.





*Unique topical anesthetic aids*  
*tracheal and g.i. intubation*

**NEW TRONOTHANE®**  
**HYDROCHLORIDE**  
 (PRAMOXINE HYDROCHLORIDE, ABBOTT)

Cream



Sterile Jelly



Compound Lotion



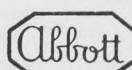
Topical Solution



HERE is a new agent that makes intubation less traumatic and painful. TRONOTHANE Solution, sprayed in the throat during basal anesthesia, is effective in preventing laryngospasm, and permits earlier tracheal intubation. During Levin tube or similar g. i. intubation, the Jelly or Cream lubricates and anesthetizes, and helps keep the tube *in situ* for the necessary post-operative time.

TRONOTHANE is prompt. Yet toxicity and sensitization from this non-“caine” drug are negligible, with no reactions reported in over 1,220 trials of various clinical uses.<sup>1,2,3,4</sup> Investigate TRONOTHANE soon.

ABBOTT LABORATORIES LIMITED — MONTREAL.



1. Peal, L., and Karp, M., A New Surface Anesthetic Agent: Tronothane, Anesthesiology, in press, 1954.
2. Schwartz, F. R., Tronothane in Common Pruritic Syndromes, Postgrad. Med., 16:19, July, 1954.
3. White, C. J., A New Anesthetic for Certain Diseases of the Skin, J. Lancet, 74:98, March, 1954.
4. Birnberg, C., and Horner, H., A Simple Method for the Relief of Postpartum Perineal Pain, Amer. J. Obst. & Gynec., 67:661, March, 1954.

## American College of Surgeons

### Sectional Meeting, Winnipeg, April 25-26

Surgeons and related medical personnel from the western Canadian provinces and northwestern states are invited to the Sectional Meeting of the American College of Surgeons in Winnipeg, Manitoba, April 25-26, at the Fort Garry. Dr. P. H. T. Thorlakson, Professor of Surgery, University of Manitoba, is Chairman of the Committee on Arrangements.

Gastric surgery, cardiac surgery, plasma substitutes, ureteral transplants, surgical lesions of the pancreas, biliary tract surgery, surgical diseases of the spleen, trauma and cancer will be among the topics to be covered in panel discussions, reports, medical motion pictures, cine clinic films shown at the recent Clinical Congress, and symposia.

Dr. Thorlakson will preside over the opening session on Monday morning, April 25. The program follows:

**Acute Abdominal Injuries.** Frederick E. Kredel, Charleston. (Cine clinic film.)

**Gangrene of the Extremities.** Frederick H. Wigmore, Moose Jaw, Saskatchewan.

**Modern Application of the Billroth I Technique.** Earl A. Connolly, Omaha.

**Symposium on Trauma:**

**Fractures of the Ankle.** George H. Ryan, Winnipeg.

**Fractures About the Elbow.** John C. Ivins, Rochester, Minn.

**Management of Intrathoracic Injuries.** W. Robert Schmidt, Minneapolis.

**Hysterectomy: Three-Quarter Intrafascial Technique.** John C. Burch, Nashville. (Cine clinic film.)

Dr. J. O. Baker, Edmonton, will preside over the afternoon symposium and panel discussion:

**Symposium on Gynecology**

**Use of Kjelland's Forceps.** Alexander W. Andison, Winnipeg.

**Endometriosis.** Douglas E. Cannell, Toronto.

**Disfunctional Uterine Bleeding.** Elinor F. E. Black, Winnipeg.

**Panel Discussion on Surgical Diseases of the Spleen:**

Moderator: Stanley O. Hoerr, Cleveland.

Collaborators: Colin C. Ferguson, Winnipeg, John McRae Kilgour, Winnipeg, Thomas S. Wilson, Edmonton.

Dr. Paul R. Hawley, The Director, The American College of Surgeons will speak on the work of the College at the Dinner Meeting April 25. Dr. Oliver S. Waugh, Winnipeg will preside. A program of cine clinic films will follow:

Precautions in Resection of the Colon for Carcinoma. Warren H. Cole, Chicago.

Cholecystectomy. Richard B. Cattell, Boston.

Complicated Appendicitis. James D. Rives, New Orleans.

Dr. H. H. James, Butte, Montana, will be presiding officer for the Tuesday morning, April 26 scientific session:

Thyroidectomy for Large Multinodular Goiter.

George Crile, Jr., Cleveland, (Medical Motion Picture.)

Volvulus of the Sigmoid Colon. Harwell Wilson, Memphis. (Motion Picture)

Current Trends in the Treatment of Shock. Fraser N. Gurd, Montreal.

Some Considerations Relative to Uretero-Intestinal Transplants. Gordon N. Ellis, Edmonton.

Carcinoid Tumors of the Gastrointestinal Tract. Kenneth F. Maclean, Reno.

Indications for Tracheotomy. Maitland B. Perrin, Winnipeg.

Surgery of the Pancreas. Walter C. MacKenzie, Edmonton.

The Selection of the Appropriate Operation for Gastric Ulcer and Duodenal Ulcer—Clinical and Technical Aspects. Stanley O. Hoerr, Cleveland. Treatment of Carcinoma of the Breast. Deryl Hart, Durham. (Cine clinic film.)

A cancer symposium and panel discussion will complete the afternoon meetings, with Dr. Rosslyn B. Mitchell, Winnipeg, presiding:

**Cancer Symposium:**

Carcinoma of the Colon. Archibald J. Grace, London, Ontario.

Place of Radiation in Cancer Therapy. R. J. Walton, Winnipeg.

Cancer of the Neck. Robert A. Mustard, Toronto.

**Panel Discussion on Biliary Tract Surgery:**

Moderator: Walter C. MacKenzie, Edmonton.

Collaborators: Clayton H. Crosby, Regina. Kenneth F. Maclean, Reno, Malcolm R. MacCharles, Winnipeg.

Serving with Dr. Thorlakson on the Committee on Arrangements are the following Winnipeg doctors: Lennox G. Bell, Elinor F. E. Black, Charles W. Burns, Colin C. Ferguson, Malcolm R. MacCharles, S. S. Peikoff, K. R. Trueman.

Non-Fellows are charged a five-dollar registration fee, but Fellows, members of the Junior Candidate Group, internes and residents pay no fee.

Other information about this meeting may be obtained from Dr. H. Prather Saunders, Associate Director, American College of Surgeons, 40 East Erie Street, Chicago 11, Illinois.

# from the literature...

"The value of CHLOROMYCETIN in the treatment of infections due to most bacteria, the pathogenic rickettsiae, and many of the large viruses has now been well established."<sup>1</sup>

## in typhoid fever

"Our experience...and many others all show that chloramphenicol [CHLOROMYCETIN] has an established place in the treatment of typhoid fever."<sup>2</sup>

## in meningitis

"At the present time chloramphenicol [CHLOROMYCETIN] is recognized as a potent antibiotic whose ease of administration and prompt diffusion into serum

and spinal fluid makes it a particularly useful agent in the treatment of many forms of purulent meningitis."<sup>3</sup>

## in bacterial endocarditis

"Within ten days [after therapy with CHLOROMYCETIN was begun] there was a dramatic improvement in the patient's clinical appearance and the sedimentation rate and temperature became normal."<sup>4</sup>

## in rickettsial diseases

"Chloramphenicol [CHLOROMYCETIN] has been used with striking success in patients with scrub typhus, murine typhus, Rocky Mountain spotted fever, and epidemic typhus."<sup>5</sup>

# Chloromycetin

(Chloramphenicol, Parke-Davis)

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

1. Yow, E. M.; Taylor, F. M.; Hirsch, J.; Frankel, R. A., & Carnes, H. E.: *J. Pediat.* **42**:151, 1953.
2. Dodd, K.: *J. Arkansas M. Soc.* **10**:174, 1954.
3. Hanbery, J. W.: *Neurology* **4**:301, 1954.
4. Miller, G.; Hansen, J. E., & Pollock, B. E.: *Am. Heart J.* **47**:453, 1954.
5. Keefer, C. S., in Smith, A., & Wermer, P. L.: *Modern Treatment*, New York, Paul B. Hoeber, Inc., 1953, p. 65.

PARKE, DAVIS & CO., LTD.



WALKERVILLE, ONTARIO

## Department of Health and Public Welfare

## Comparisons Communicable Diseases — Manitoba (Whites and Indians)

DISEASES	1954		1953	
	Jan. 2 to Jan. 29, '55	Nov. 28 to Dec. 26, '54	Jan. 1 to Jan. 23, '54	Nov. 29 to Dec. 26, '53
Anterior Poliomyelitis	0	0	6	24
Chickenpox	158	213	192	299
Diphtheria	1	0	0	0
Diarrhoea and Enteritis, under 1 year	2	5	8	13
Diphtheria Carriers	0	0	0	0
Dysentery—Amoebic	0	0	0	0
Dysentery—Bacillary	1	0	0	4
Erysipelas	0	0	1	1
Encephalitis	0	1	0	0
Influenza	6	3	4	13
Measles	251	110	57	102
Measles—German	4	1	0	3
Meningococcal Meningitis	2	4	0	3
Mumps	114	122	62	108
Ophthalmia Neonatorum	0	0	0	0
Puerperal Fever	0	0	0	0
Scarlet Fever	23	34	61	70
Septic Sore Throat	0	3	5	6
Smallpox	0	0	0	0
Tetanus	0	0	0	0
Trachoma	0	0	0	0
Tuberculosis	16	90	7	95
Typhoid Fever	0	0	0	0
Typhoid Paratyphoid	0	0	0	0
Typhoid Carriers	0	0	0	0
Undulant Fever	0	0	0	0
Whooping Cough	63	103	4	24
Gonorrhoea	80	91	101	141
Syphilis	4	5	3	12
Jaundice Infectious	24	48	14	24

Four-week Period January 2nd to January 29th, 1955

DISEASES	*828,000 Manitoba	*861,000 Saskatchewan	*2,825,000 Ontario	*2,952,000 Minnesota
(White Cases Only)				
*Approximate population.				
Actinomycosis	1	—	—	—
Anterior Poliomyelitis	1	—	—	3
Chickenpox	158	23	2551	—
Diarrhoea and Enteritis, under 1 yr.	2	11	—	—
Diphtheria	1	1	1	17
Diphtheria Carriers	—	—	—	1
Dysentery—Amoebic	—	—	—	1
Dysentery—Bacillary	1	1	14	4
Encephalitis Epidemic	—	—	—	—
Erysipelas	—	—	1	—
Influenza	6	—	7	2
Jaundice, Infectious	24	55	99	198
Measles	251	7	1288	1171
German Measles	4	2	682	—
Meningitis Meningococcus	2	—	4	8
Mumps	114	6	1439	—
Ophthal. Neonat.	—	—	—	—
Puerperal Fever	—	—	—	—
Scarlet Fever	23	16	260	73
Septic Sore Throat	—	48	4	61
Smallpox	—	—	—	—
Tetanus	—	—	—	—
Trachoma	—	—	—	—
Tuberculosis	16	17	84	11
Tularemia	—	—	—	—
Typhoid Fever	—	—	1	—
Typh. Para-Typhoid	—	—	—	—
Typhoid Carrier	—	—	—	—
Undulant Fever	—	—	—	8
Whooping Cough	63	44	798	127
Gonorrhoea	80	—	172	—
Syphilis	4	—	55	—

\*Statistics for 3 weeks only.

## DEATHS FROM REPORTABLE DISEASES

January, 1955

**Urban**—Cancer, 53; Influenza, 1; Pneumonia, Lobar (490), 2; Pneumonia (other forms), 17; Tuberculosis, 3; Diarrhoea and Enteritis, 1; Septicaemia and Pyamia, 1. Other deaths under 1 year, 27. Other deaths over 1 year, 188. Stillbirths, 10. Total, 225.

**Rural**—Cancer, 29; Pneumonia, Lobar (490), 7; Diarrhoea and Enteritis, 4. Other deaths under 1 year, 10. Other deaths over 1 year, 141. Stillbirths, 9. Total, 160.

**Indians**—Other deaths under 1 year, 1. Other deaths over 1 year, 2. Stillbirths, 1. Total, 4.

**Diphtheria**—Not a single case in 1954. January 2nd, 1955, a case at Swan River, a married woman. Two of her children were carriers of the virulent organism, but as they had received toxoid were immune and did not become ill. Source of infection? We are hunting.

**Chickenpox, Measles and Mumps** are all epidemic in the Winnipeg area and are also scattered throughout the province to some degree.

**Infectious Jaundice** is being a nuisance and does not appear to be decreasing.

## Book Reviews

### Color Atlas of Pathology—Volume 2

Prepared under auspices of the U.S. Naval Medical School by various authors

It has been well said that the ability to recognize a stained section of pathological tissue depends chiefly on having seen a similar section previously down the tube of a microscope. This is especially true of those who are not expert microscopists or tissue experts. As the recognition of pathological tissue changes in biopsy diagnosis and autopsy recognition of mortality etiology has become more and more important, there has been a great need for a text book which would provide an atlas to take the place of special training in microscopic recognition of pathological processes.

The two volumes prepared by the U.S. Naval School and published by J. B. Lippincott Co. have gone a long way to supply that need and to provide a reference also for those who are preparing for specialization in all the branches of the healing art.

The perfecting of color photomicrography has made possible the exact reproduction of the changes as seen under the microscope with the usual staining methods. The old black and white productions leave a great deal to be desired and imagined. The cost of good color reproductions

in publications is high and for an Atlas of this kind containing 1032 color reproductions it would be prohibitive without the benign auspices of liberal subsidy.

A case history to tie each reproduction to life is an excellent idea and in itself contributes a great deal of clinical knowledge. Gross pictures of the patient and/or the lesion help to clarify and define the condition. Expert summing up of the pathology by well known authorities on each individual subject ties the whole into a neat bundle of knowledge.

There is an introduction to each division of the contents written lucidly and well arranged by various authors. Volume 2 follows the pattern established by Volume 1, and deals with:

Diseases of the Endocrine System  
Gynecologic and Obstetric Lesions  
Diseases of the Breast  
Diseases of the Male Genital Tract  
Diseases of the Skin.

The inclusion of nearly 100 pages on diseases of the skin is a most welcome feature of this book as this subject receives only scant attention in most books on pathology.

Throughout the book numerous tables compare and distinguish regional or related pathologic conditions.

The importance of a good knowledge of pathology to all doctors is universally admitted. The



THE CANADA STARCH CO. Limited  
Montreal

Please send me

- FEEDING CALCULATOR.
- Book "CORN SYRUP FOR INFANT FEEDING."
- INFANT FORMULA PADS.
- Book "DEXTROSOL."

Name \_\_\_\_\_

Address \_\_\_\_\_

## Readily Digestible

### Milk Modifiers for Infant Feeding

Crown Brand and Lily White Corn Syrups are well known to the medical profession as a thoroughly safe and satisfactory carbohydrate for use as a milk modifier in the bottle feeding of infants.

These pure corn syrups can be readily digested and do not irritate the delicate intestinal tract of the infant.

Either may be used as an adjunct to any milk formulae.

Crown Brand and Lily White Corn Syrups are produced under the most exacting hygienic conditions by the oldest and most experienced refiners of corn syrups in Canada, an assurance of their absolute purity.

## "CROWN BRAND" and "LILY WHITE"

### CORN SYRUPS

Manufactured by

THE CANADA STARCH COMPANY LIMITED  
Montreal and Toronto

**For Doctors Only**—A Convenient pocket calculator, with varied infant feeding formulae employing these two famous corn syrups . . . a scientific treatise in book form for infant feeding . . . and infant formula pads, are available on request, also an interesting booklet on prenatal care. Kindly clip the coupon and this material will be mailed to you immediately.

volumes provide an excellent method of building up that knowledge without special equipment and from time to time as opportunity permits. They provide also a museum of cases and illustrations for reference and comparison.

The third and completing volume of this series is in process of preparation and we look forward to its publication.

Color Atlas of Pathology Volume 2 — 432 pages, U.S. Naval Medical School — Bethesda, Maryland. J. B. Lippincott Company, 1954. Price \$20.00. Obtainable through Book Sales Room, Medical College, Winnipeg. T. H. W.

**Time Distortion in Hypnosis.** Linn F. Cooper, M.D. and Milton H. Erickson, M.D. 191 pp., \$4.00. Williams and Wilkins, Baltimore, 1954.

The main part of this book describes a series of experiments designed to study the subjective evaluation of time in hypnotised subjects. It is found possible to have a person in a trance state relive in seconds events which if measured by a clock would take hours, days, weeks or longer. Furthermore, the incidents seem to take place at a speed normal to the experience. These experiments demonstrate that it is possible by suggestion in the hypnotic state to increase manifold the number of experiences which can be relived in a few seconds.

The second part of the book is written by Milton Erickson, one of the foremost names on the conti-

nent in hypnosis. This part of the book purports to show how the technique of time distortion can be of help therapeutically. The case for this is not convincingly made. From the case histories it appears that the technique's chief use in these instances was a ruse to have patient's consent to be hypnotised by persuading them that the purpose of the trance state was to conduct a scientific experiment. It was used in other instances also, but other techniques would have been as effective.

Probably the most controversial experiments are those which seem to indicate that learning is facilitated by practice in a trance state. For example, Erickson describes a nightclub guitar player who was being threatened with dismissal because of his poor playing. Because he had little time to practice, he was given post hypnotic suggestion to the effect that he would carry out hallucinated practice in a trance, repeatedly during the week. Each trance would last a few seconds of clock time only. Yet after a few sessions his playing improved sufficiently to make his job secure.

This is an interesting book for students of hypnosis in that it describes some of the experimental work going on. To others whose contact with hypnosis is casual it will give some indications of what is happening in this field experimentally and clinically. It should also interest those who are concerned with the philosophy of Time.

J.M.

## for rapid treatment and prevention of infantile diarrheas

# Arobon

"Arobon Nestlé", a specially processed carob flour preparation, permits the rapid elimination of acute and chronic diarrheas, dysentery, enterocolitis and colic in infants, children and in adults. In the majority of cases Arobon alone will suffice; in cases of parenteral diarrhea it will be a very useful adjunct to antibiotics.

Arobon permits prevention of estival diarrheas (1% to the milk formula).

Samples and literature are available to doctors.



NESTLÉ (CANADA) LTD. TORONTO

## Book Review

**Review of Medical Bacteriology.** Ernest Jawetz, Joseph L. Melnick and Edward A. Adelberg, \$3.60. Lange Medical Publications, Los Altos, California, 1954.

The authors of this textbook deal concisely with Bacteria, Fungi, Viruses, Antibiotics and Immunology. The book would appear to be an excellent reference for persons preparing for an examination and for practitioners who wish to keep up with the many recent advances in these specialized subjects.

Each class of pathogenic microorganism is discussed in a separate chapter in which is contained the most recent information available of each species listed in that class. Included in each chapter are listed the laboratory tests required and the kind of material to be submitted for the identification of a microorganism. The disease associated with each pathogen is also briefly discussed, as well as the most modern and effective agents for prophylaxis and for the treatment and control of a disease associated with a specific infecting microorganism.

In order to keep abreast of the many advances in Microbiology, a new edition of this textbook is to be published every second year. These books should prove an economical and a convenient reference. The price of the present book is \$3.60, and is one of a series of Lange Medical Publications, each one of which is reviewed and brought up-to-date every second year.

J.C.W.

### REMEMBER

**Winnipeg Medical Society  
BENEVOLENT FUND**  
Subscriptions may be sent to  
604 Medical Arts Building

**DOCTORS' and NURSES' DIRECTORY**  
247 Balmoral Street, Winnipeg, Man.  
24-Hour Service

Phones:  
Doctors' — **37 123**  
Nurses' — **722 151**  
Registered Nurses.  
Practical Nurses.

Physiotherapists and Masseuses  
—P. BROWNELL, Reg. N., Director.

Victorian Order of  
Nurses—Night calls,  
Sundays and  
Holidays,  
Phone **722 008**

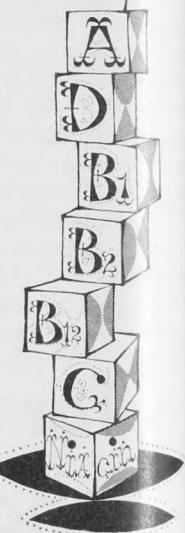
**POTENCY ASSURED in new**

# Pediavite



### FOR CHILDREN . . .

Potency of vitamins in Pediavite is assured because they are dispersed in a dry, dextrose base. In addition, Vitamins A & D have been given a special stabilization process. Pediavite is a palatable, vitamin preparation which dissolves readily in the child's formula, in a glass of milk or orange juice, or spread on cereal or other food.



### Contains per level teaspoonful:

Vitamin A . . . . .	5000 I.U.
Vitamin D . . . . .	1000 I.U.
Thiamin Mononitrate . . . . .	1.2 mg.
Riboflavin . . . . .	2.0 mg.
Niacinamide . . . . .	7.5 mg.
Vitamin B12 . . . . .	3.0 mcg.
Ascorbic Acid . . . . .	60.0 mg.
Dextrose . . . . .	2.7 Gm.

Suggested Dosage: One level teaspoonful daily

Package: 3 oz. jar (30 day treatment)

Write for sample to 525 Logan Ave., Toronto  
Available by Rx . . . at all pharmacies

**E. B. Shuttleworth  
Limited**

PHARMACEUTICALS  
TORONTO CANADA